PYREX® and Corning® Glass and Reusable Plastic Product Selection Guide

CORNING

PYREX®

A Corning Brand

PYREXPLUS® glassware is coated with a tough, transparent plastic vinyl. The coating, which is applied to the outside of the vessel, helps prevent exterior surface abrasion. It also helps minimize the loss of contents and helps contain glass fragments if the glass vessel is broken.

PYREX VISTA™ glassware is an economical option for the customer who is willing to forgo the premium benefits of PYREX products. Manufactured to Corning/PYREX standards and price competitive with comparable products, PYREX VISTA glassware offers a full range of products from beakers to pipets and is easily recognized by its blue graduations and novel marking spot.

PYREX®
A Corning Brand

Trusted by Scientists for more than 100 Years

Corning's invention of PYREX® set a global standard for labware that continues to be the scientists' choice more than a century later. PYREX's chemically stable, heat-resistant, low-expansion borosilicate formula can be found in laboratories all around the world, from research facilities and medical centers to high school labs.

PYREX glass has been at the heart of groundbreaking discoveries and advancements in medicine, chemistry, and including the rapid development and mass production of Penicillin and Dr. Jonas Salk's polio vaccine/countless other firsts.

ISO/IEC 17025 accreditation is the latest chapter in the PYREX story of continuous improvement and innovation. It is your assurance that our laboratory has the appropriate quality management systems and technical competence to accurately and precisely test and calibrate your glassware.

PYREX® A Corning Brand
Volumetric Glassware
ISO/IEC 17025 Accredited Laboratory

Abbreviations Used in this Catalog

LDPE	Low density Polyethylene
ETFE	Ethylene tetrafluoroethylene
PBT	Polybutylene terephthalate
PP	Polypropylene
PVC	Polyvinyl chloride
PTFE	Polytetrafluoroethylene
PMP	Polymethylpentene
PFA	Perfluoroalkoxy-copolymer

Specifications for Joints, Threads, and Stopcocks

Standard Taper
Symbol used to designate inter-changeable joints, stoppers, and stopcocks that comply with the requirements of Commercial Standard CS-21 published by N.I.S.T.

Spherical Joint
Symbol designates spherical joints that comply with CS-21.

Product Standard
Symbol designates stopcock plugs made of PTFE that meet requirements of N.I.S.T. Voluntary Product Standard PS 28-70.

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Product Ordering Information

For information on Purchasing Options, Terms and Conditions of Sale, Return and Repair Policies, and Warranty/Guarantee Registration, visit our website at **www.corning.com/how-to-buy**.

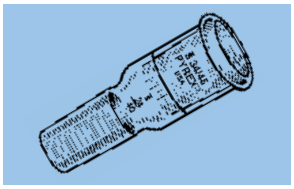
Reusable Glassware

ADAPTERS

7800 PYREX® Adapter, Drying Tube, ⅀ Joint

Inverted form with the inner ⅀ joint at one end only, with a single bulb. The chamber is approximately 110 mm long including the bulb, 30 mm O.D. and will take a No. 2 rubber stopper.

Cat. No.	⅀ Joint Size	Approx. Bulb O.D. (mm)	Approx. Length (mm)	Qty/Pk	Qty/Cs
7800-24	24/40	30	183	1	12



8800 PYREX Adapter, Reducing, ⅀ Joints

With an outer ⅀ joint at the top and a smaller inner ⅀ joint at the bottom.

Cat. No.	⅀ Top Outer Joint Size	⅀ Bottom Inner Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
8800-2419	24/40	19/38	105	2	6
8800-2924	29/42	24/40	105	2	6
8800-3424	34/45	24/40	110	–	1

8820 PYREX Adapter, Enlarging, ⅀ Joints

With an outer ⅀ joint at the top and a larger inner ⅀ joint at the bottom.

Cat. No.	⅀ Top Outer Joint Size	⅀ Bottom Inner Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
8820-2429	24/40	29/42	100	1	6
8820-2445	24/40	45/50	115	1	6

8821 PYREX Adapter, Thermometer

One end with a ⅀ ground joint and the other end tooled to accommodate a thermometer. The adapter is supplied complete with a rubber thermometer holder (Cat. No. 7715).

Cat. No.	⅀ Joint Size	Approx. Length (mm)	Qty/Cs
8821-14	14/20	60	1
8821-19	19/22	57	1
8821-24	24/40	80	1

*This tube is also a replacement part for all Corning organic chemistry kit (Cat. Nos. 6949 through 6949K).

8825 PYREX Adapter, Bushing Type, ⅀ Joints

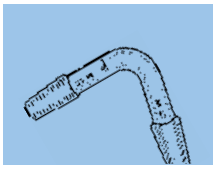
These adapters are fabricated with heavy walls for mechanical strength and are further strengthened by the heavy, uniform rim at the top which affords a serviceable finger grip. These adapters are shorter than the conventional type, thus allowing more compact and convenient assemblies. Useful for attaching ⅀ thermometers.

Cat. No.	⅀ Outer Joint Size	⅀ Inner Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
8825-3424	34/45	24/40	59	2	12

8840 PYREX Adapter, 105° Angle, ⅀ Joint with Drip Tube

The arms are approximately 105° apart. The upper end is equipped with an outer 24/40 ⅀ joint. The lower end is cut off at an angle and is used as a receiver adapter. Tube O.D. is 12 mm.

Cat. No.	⅀ Outer Joint Size	Qty/Pk	Qty/Cs
8840-24	24/40	2	12



8920 PYREX® Adapter, Connecting, 75° Angle, Two-way Ⓢ Joints

The arms are approximately 75° apart and both are equipped with inner 24/40 Ⓢ joints. Often used as a stillhead adapter

Cat. No.	Ⓢ Inner Joint Size	Qty/Pk	Qty/Cs
8920-24	24/40	2	12

8930 PYREX Adapter, Connecting, 75° Angle, Distilling, Ⓢ Joints

With full-length inner 24/40 Ⓢ joints. The connecting arm is approximately at a 75° angle from vertical and is 200 mm long.

Cat. No.	Approx. O.D. (mm)	Ⓢ Inner Joint Size	Qty/Cs
8930-24	22	24/40	1

8940 PYREX Adapter, Connecting, 105° Angle, Two-way, Ⓢ Joints

The arms are approximately 105° apart. One end is equipped with an outer 24/40 Ⓢ joint and the other end with an inner Ⓢ joint. Used as a receiver adapter.

Cat. No.	Top Outer Ⓢ Joint Size	Bottom Inner Ⓢ Joint Size	Qty/Pk	Qty/Cs
8940-24	24/40	24/40	1	12

8945 PYREX Adapter, Connecting, 105° Angle, Two-way, Vacuum Suction Tube, Ⓢ Joints

A receiver adapter, with a vacuum connection. The vacuum tube O.D. is 10 mm.

Cat. No.	Approx. Length (mm)	Ⓢ Inner and Outer Joint Size	Approx. Stem Length Below Ⓢ Joint (mm)	Qty/Pk	Qty/Cs
8945-24	295	24/40	170	1	6

8946 PYREX Adapter, 105° Angle, Distilling, Ⓢ Joints

With outer Ⓢ joint at the top and an inner-sealed through drip-tip joint at the bottom. Bent at a 105° angle. The serrated sidearm is 10 mm O.D. Drip-tip at the bottom extends about 20 mm below the lower end of the joint.

Cat. No.	Approx. Length (mm)	Ⓢ Inner and Outer Joint Size	Qty/Pk	Qty/Cs
8946-24	175	24/40	1	6

8947 PYREX Adapter, Vacuum, Connecting, 105° Angle, Ⓢ Joints

With tubulation of 10 mm O.D. for attaching to a vacuum pump or to inner and outer Ⓢ joints. Includes a drip-tip on the inner tube.

Cat. No.	Ⓢ Inner and Outer Joint Size	Qty/Pk	Qty/Cs
8947-14	14/20	–	1
8947-19	19/22	1	6

*These tubes are also replacement parts for organic chemistry kits Cat. Nos. 6949-E, 6949G-2, and 6949K.

8950 PYREX Adapter, Distilling, 60° Angle, Three Ⓢ Joints

Cat. No.	Ⓢ Inner and Outer Joint Size	Approx. Length (mm)	Qty/Cs
8950-24	24/40	206	1

*This tube is also a replacement part for organic chemistry kit (Cat. No. 6949).

8980 PYREX® Adapter, Connecting, ⅋ 10/30 Thermometer Opening, 75° Angle, Three-way

The sidearm is at an angle approximately 75° from the lower joint. The lower end and sidearm are equipped with inner ⅋ 24/40 joints. The outer ⅋ 10/30 joint accommodates a thermometer.

Cat. No.	⅋ Top Outer Joint Size	⅋ Bottom Inner Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
8980-24	10/30	24/40	160	1	6

9000 PYREX Adapter, Connecting, 75° Angle, Three-way, ⅋ Joints

The sidearm is at an angle approximately 75° from the lower joint. The lower end and sidearm are equipped with inner ⅋ joints, and the upper end with an outer ⅋ joint. All joints on each tube are of the same size.

Cat. No.	⅋ Inner and Outer Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
9000-14	14/20	105	–	1
9000-19	19/22	105	–	1
9000-24	24/40	160	1	6

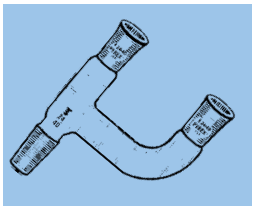
*These tubes are also replacement parts for organic chemistry kits (Cat. Nos. 6949-E, 6949G-2, and 6949K).

9021 PYREX Adapter, Connecting, 120° Angle, Three-way, ⅋ Joints

The sidearm is at an angle approximately 120° from the lower joint. Both outer and inner ⅋ joints are of the same size.

Cat. No.	⅋ Inner and Outer Joint Size	Approx. Length (mm)	Qty/Cs
9021-24	24/40	162	1

*This tube is also a replacement part for organic chemistry kit Cat. No. 6949.



9040 PYREX Adapter, Connecting, Claisen type, Three-way, ⅋ Joints

With outer ⅋ joints at the upper end and on the parallel sidearm. With inner ⅋ joint at the lower end. All joints on each tube are of the same size.

Cat. No.	⅋ Inner and Outer Joint Size	Approx. Length (mm)	Qty/Cs
9040-24	24/40	160	6

9050 PYREX Adapter, Connecting, Claisen Type, Three-way, ⅋ Joints

A three-way tube with two outer and one inner joint of the same size.

Cat. No.	⅋ Inner and Outer Joint Size	Approx. Length (mm)	Qty/Cs
9050-14	14/20	125	1
9050-19	19/22	123	1

*This tube is also a replacement part for organic chemistry kits (Cat. Nos. 6949-E, 6949G-2, and 6949K).

9060 PYREX Adapter, Connecting, ⅋ 10/30 Thermometer Opening, Distilling, Three-way, ⅋ Joints

The sidearm is at an angle approximately 75° from the lower part of the vertical tube. The joint on the sidearm is at an angle approximately 105° from the sidearm. The sidearm and lower tube are equipped with inner 24/40 ⅋ joints of the same size. The upper tube is equipped with an outer ⅋ 10/30 joint for a thermometer.

Cat. No.	⅋ Top Outer Joint Size	⅋ Bottom Inner Joint Size	Approx. Width (mm)	Qty/Pk	Qty/Cs
9060-24	10/30	24/40	200	1	6

9420 PYREX® Adapter, Distilling, Suction, Ⓢ Joints

For converting ordinary flasks with Ⓢ jointed necks to vacuum-type Ⓢ receivers. With an outer Ⓢ joint at the top and an inner Ⓢ joint of the same size at the bottom. The sidearm is approximately 10 mm O.D. by 25 mm long.

Cat. No.	Ⓢ Inner and Outer Joint Size	Approx. Total Length (mm)	Qty/Pk	Qty/Cs
9420-24	24/40	137	1	6

*This tube is also a replacement part for organic chemistry kit (Cat. No. 6949).

BEADS

7268 PYREX Bead, Solid Glass

Useful as packing for distillation columns, mixing beads, and boiling stones. Beads are packaged in 0.45 kg. (1 lb.) packs, which have a packing volume of approximately 360 cm^3 or 22 cubic inches.

Cat. No.	Approx. O.D. (mm)	Avg. Count (lb)	O.D. Tolerance (± mm)	Qty/Pk	Qty/Cs
7268-3	3	13,600	.75	1	4
7268-4	4	5,700	.75	1	4
7268-5	5	3,000	.75	1	4
7268-6	6	1,700	.75	1	4

BEAKERS

1000 PYREX Beaker, Low Form, Double Scale, Graduated

Beaker, with spout, manufactured with uniform wall thickness, offers optimum balance between thermal shock resistance and mechanical strength. For convenience, the 250 through 4000 mL beakers have a double graduated metric scale to indicate approximate content. All sizes have an extra large marking spot. The 10 mL size is not graduated.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Approx. O.D. x Height (mm)	Grad. Increment (mL)	Qty/Pk	Qty/Cs
1000-10	10	–	25 x 32	–	12	48
1000-20	20	5-15	32 x 40	5	12	48
1000-30	30	5-25	35 x 56	10	12	48
1000-50	50	10-40	42 x 56	10	12	48
1000-100	100	20-80	50 x 72	10	12	48
1000-150	150	20-140	57 x 86	10	12	48
1000-250	250	25-200	68 x 90	25	12	48
1000-400	400	25-325	77 x 110	25	12	48
1000-600	600	50-500	90 x 124	50	6	36
1000-800	800	50-750	98 x 135	50	6	24
1000-1L	1000	50-1000	108 x 158	50	6	24
1000-2L	2000	200-1800	131 x 193	100	4	8
1000-3L	3000	250-2500	146 x 216	125	1	6
1000-4L	4000	500-3500	160 x 250	250	1	6
1000-PACK*	Assortment pack				5	1 set

*A convenience pack containing one each of the most popular sizes of 1000 beaker. Designed for the low volume user, a case contains one each of five sizes; 50 mL, 100 mL, 250 mL, 600 mL, and 1L. Packaged in a partitioned carton for safe transit and storage.
Reference: ASTM E-960.

1003 PYREX® Beaker, Griffin, Heavy Duty, Graduated

Heavy duty beakers specifically designed to offer the best mechanical strength under harsh conditions, such as mechanized washing operations. For convenience, the 250 through 4000 mL beakers have a double graduated metric scale to indicate their approximate content. All sizes have an extra large marking spot.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Approx. O.D. x Height (mm)	Grad. Increment (mL)	Qty/Pk	Qty/Cs
1003-150	150	20-140	57 x 86	20	12	48
1003-250	250	25-200	68 x 90	25	12	48
1003-400	400	25-325	82 x 110	25	12	48
1003-600	600	50-500	90 x 124	50	6	36
1003-1L	1000	50-1000	108 x 156	50	6	24
1003-2L	2000	200-1800	131 x 180	200	4	8
1003-4L	4000	500-3500	160 x 250	250	1	4

Reference: ASTM E-960.

1010 PYREX Beaker, with Handle

A sturdy, molded glass handle is secured to this beaker by a stainless steel strap which fits into a recess in the beaker wall. Hot liquids can be handled easily and safely.

Cat. No.	Description	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
1010	Complete	3000	155 x 213	1	8
1010-BO	Beaker only	3000	155 x 213	1	8

1060 PYREX Beaker, Berzelius, Tall Form, with Spout, Graduated

A tall beaker with spout to facilitate pouring. For convenience, these beakers are graduated to indicate their approximate content.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Approx. O.D. x Height (mm)	Grad. Increment (mL)	Qty/Pk	Qty/Cs
1060-100	100	20-80	50 x 79	10	12	48
1060-200	200	25-150	56 x 102	25	12	48
1060-300	300	25-250	64 x 118	25	12	48
1060-400	400	25-325	69 x 127	25	6	36
1060-500	500	50-450	75 x 136	50	6	30
1060-600	600	50-550	79 x 152	50	6	24
1060-1L	1000	50-950	89 x 187	50	6	18

For beaker cover, see Cat. No. 9985.
Reference: ASTM E-960.

6480 PYREX Beaker, Double Spout, Double Scale

Graduated in both fluid ounces and milliliters. The graduations are approximate only. These blown graduates, of substantial weight for greater mechanical strength, are ideal for measuring hot solutions. (Because of their heavy walls, they should not be subjected to direct contact with the heat source.)

Cat. No.	Approx. Capacity (mL)	Fluid Ounces	Approx. O.D. x Height (mm)	Grad. Increment (mL)	Qty/Pk	Qty/Cs
6480-125	125	4	56 x 102	5	1	12
6480-250	250	8	64 x 130	10	1	12
6480-500	500	16	78 x 172	25	1	12
6480-1L	1000	32	102 x 190	50	1	6
6480-2L	2000	64	117 x 265	50	1	6

BOTTLES

1220 PYREX® Bottle, Aspirator, Outlet for Tubing

A range of bottles featuring a tubular sidearm outlet to facilitate attachment of flexible tubing. Useful as a delivery/storage container for solutions.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. of Outlet (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
1220-250	250	2	10	72 x 132	6	18
1220-500	500	4	10	84 x 164	6	12
1220-1L	1000	6	10	110 x 200	1	6
1220-2L	2000	6	12.5	138 x 250	1	6
1220-4L	4000	10	12.5	175 x 289	1	4
1220-2X	9500	12	12.5	187 x 476	–	1
1220-3X	13250	12	12.5	238 x 445	–	1
1220-5	19000	12	12.5	292 x 508	–	1

61220 PYREXPLUS® Bottle, Aspirator, Protective Coating, Outlet for Tubing

Bottle has a protective PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. Bottle features a tubular sidearm outlet for attachment of flexible tubing. The tubulation is not coated to allow easy connection of standard size tubing.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. of Outlet (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
61220-250	250	2	10	70 x 132	–	6
61220-500	500	4	10	86 x 164	–	6
61220-1L	1000	6	10	107 x 200	1	4
61220-2L	2000	6	12.5	133 x 250	1	4
61220-4L	4000	10	12.5	165 x 298	–	1
61220-3X	13250	12	12.5	238 x 445	–	1

Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat.

1260 PYREX Bottle, Centrifuge, Heavy Wall

For use where relatively small amounts of solids are involved. These bottles have a small bottom area, which permits concentration of sediment for decanting operations. Due to the heavy wall, the actual capacity is approximately 85% of the capacity listed.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
1260-250	250	6	60 x 143	–	12
1260-500	500	6	73 x 175	1	6

The 250 mL fits IEC #384, the 500 mL fits IEC #353.

1261 PYREX Bottle, Centrifuge, Heavy Wall, Screw Cap

Particularly useful in handling sputum specimens. This bottle enables digestion, shaking, neutralizing, and centrifuging to be performed in one container. The tight-fitting polypropylene screw cap with PTFE liner reduces the possibility of aerosol escape.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
1261-200	200	60 x 141	38 x 400	1	12
1261-CO	–	Cap only, white	38 x 400	–	1

1290 PYREX® Bottle, Roux Culture, Offset Neck

This bottle is designed so that when laid flat, it will hold approximately one-half of the stated capacity of solution. Offset neck is tool-finished for increased strength and uniform stopper (Cat. No. 7575-19) fit. It is useful for growing mass cultures and single or monolayer cultures. Will withstand repeated sterilization (wet or dry). Bottle stacks for easy storage.

Cat. No.	Approx. Capacity (mL)	Approx. Cross Section (mm)	Approx. Height (mm)	Qty/Cs
1290-1L	1000	55 x 120	255	18

1367 PYREX Bottle, Milk Dilution, Screw Cap

Narrow mouth bottle for general storage of solutions and tissue culture work. Phenolic cap with rubber liner will withstand sterilization (wet at 121°C). Meets the requirements for milk dilution bottles stated in the *Standard Methods for the Examination of Dairy Products*, published by the American Public Health Association.

Cat. No.	Approx. Capacity (mL)	Approx. Cross Section (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
1367-160	160	44 x 44	150	12	48

For cap only, see Cat. No. 9999-28, G.P.I. No. 28-400.

1368 PYREX Bottle, Milk Dilution, Wide Mouth, Screw Cap

Wide mouth bottle (approximately 28 mm opening) to facilitate addition of dry solids or liquids. Phenolic cap with rubber liner will withstand sterilization (wet at 121°C). Meets the requirements for milk dilution bottles stated in the *Standard Methods for the Examination of Dairy Products*," published by the American Public Health Association.

Cat. No.	Approx. Capacity (mL)	Approx. Cross Section (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
1368-160	160	44 x 44	150	12	48

For cap only, see Cat. No. 9999-40, G.P.I. No. 40-400.

1372 PYREX Bottle, Milk Dilution, Screw Cap, Graduated

Narrow mouth bottle with a cut-line graduation mark at 99 ±1 mL. Phenolic cap with rubber liner will withstand sterilization (wet at 121°C). Meets the requirements for milk dilution bottles stated in the *Standard Methods for the Examination of Dairy Products*, published by the American Public Health Association.

Cat. No.	Approx. Capacity (mL)	Approx. Cross Section (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
1372-160	160	44 x 44	150	12	48

For cap only, see Cat. No. 9999-28, G.P.I. No. 28-400.

1373 PYREX Bottle, Milk Dilution, Wide Mouth, Screw Cap, Graduated

Wide mouth bottle for easy measuring or filling. With cut-line graduation mark at 99 ±1 mL. Phenolic cap with rubber liner will withstand sterilization (wet at 121°C).

Cat. No.	Approx. Capacity (mL)	Approx. Cross Section (mm)	Approx Height (mm)	Qty/Pk	Qty/Cs
1373-160	160	44 x 44	150	12	48

For cap only, see Cat. No. 9999-40, G.P.I. No. 40-400.

1395HTC PYREX Bottle, Media, Storage, High Temperature Cap

Heavy duty bottle which can be used for storage as well as mixing and sampling. Includes red PBT cap and red ETFE pouring rings for dry heat sterilization. Glass bead indicates full capacity line on 100 mL through 2L size. Bottles have permanent white enamel graduations and marking spots.

Cat. No.	Description	Approx. Capacity (mL)	Thread Finish	Approx. O.D. x Height (mm)	Grad. Range (mL)	Grad. Increment (mL)	Qty/Cs
1395-100HTC	Storage bottle	100	GL 45	56 x 100	40-80	20	10
1395-250HTC	Storage bottle	250	GL 45	70 x 138	50-200	50	10
1395-500HTC	Storage bottle	500	GL 45	86 x 176	100-400	100	10
1395-1LHTC	Storage bottle	1000	GL 45	101 x 225	100-900	100	10
1395-2LHTC	Storage bottle	2000	GL 45	136 x 262	400-1800	200	10
1395-5LHTC	Storage bottle	5000	GL 45	186 x 335	500-4500	500	1

1395 PYREX® Bottle, Media, Storage, Screw Cap

Heavy duty bottle which can be used for storage as well as mixing and sampling. Includes linerless, one-piece autoclavable polypropylene plug seal cap with drip free pouring rings. Optional red PBT caps and red ETFE pouring rings are available for dry heat sterilization (180°C). Glass bead indicates full capacity line on 100 mL through 2L size. Bottles have permanent white enamel graduations and marking spots. Color-coded polypropylene caps are available in a choice of orange, green, purple, red, and light gray.

Cat. No.	Description	Approx. Capacity (mL)	Thread Finish	Approx. O.D. x Height (mm)	Grad. Range (mL)	Grad. Increment (mL)	Qty/ Cs
1395-25	Storage bottle	25	GL 25	36.5 x 70	10-25	5	10
1395-50	Storage bottle	50	GL 32	46 x 88	20-50	10	10
1395-100	Storage bottle	100	GL 45	56 x 100	40-80	20	10
1395-150	Storage bottle	150	GL 45	50 x 125	62-110	25	10
1395-250	Storage bottle	250	GL 45	70 x 138	50-200	50	10
1395-500	Storage bottle	500	GL 45	86 x 176	100-400	100	10
1395-750	Storage bottle	750	GL 45	95 x 203	100-600	100	10
1395-1L	Storage bottle	1000	GL 45	101 x 225	100-900	100	10
1395-2L	Storage bottle	2000	GL 45	136 x 262	400-1800	200	10
1395-3X	Storage bottle	3500	GL 45	160 x 295	500-3000	500	10
1395-5L	Storage bottle	5000	GL 45	186 x 335	500-4500	500	1
1395-10L	Storage bottle	10000	GL 45	234 x 410	2000-9000	1000	1

1395 PYREX Bottle, Storage, Screw Caps

Cat. No.	Description	Thread Finish	Qty/Cs
1395-45DC	3-hole red PBT delivery cap	GL 45	1
1395-32HTC	Red cap, high temperature with PTFE liner	GL 32	10
1395-45HTC	Red cap, high temperature with PTFE liner	GL 45	10
1395-32LTC	Orange cap	GL 32	20
1395-45LTC	Orange cap	GL 45	20
1395-32LTR	Clear ring	GL 32	50
1395-45LTR	Clear ring	GL 45	50
1395-45HTR	Pouring ring, ETFE, high temperature	GL 45	50
1395-45LTC1	Purple cap	GL 45	20
1395-45LTC2	Light gray cap	GL 45	20
1395-45LTC3	Green cap	GL 45	20
1395-45LTMC	Gray membrane cap	GL 45	10
1395-25HTSC	Cap, open top, PBT, high temperature	GL 25	10
1395-32HTSC	Cap, open top, PBT, high temperature	GL 32	10
1395-45HTSC	Cap, open top, PBT, high temperature	GL 45	10
1395-25SS	Septa, silicone	GL 25	10
1395-32SS	Septa, silicone	GL 32	10
1395-45SS	Septa, silicone	GL 45	10
1395-25TS	Septa, PTFE faced silicone	GL 25	10
1395-32TS	Septa, PTFE faced silicone	GL 32	10
1395-45TS	Septa, PTFE faced silicone	GL 45	10

Caution: Bottles larger than 2L should NOT be used with bottle top filter units, or in other applications involving vacuum pressure, as breakage may occur. DO NOT have caps tightened immediately after autoclaving, as the vacuum resulting from cooling can cause breakage. A pouring ring is not included on 25 mL size. A vented cap is NOT recommended for use on the 5L and 10L 1395 series bottle.

51395 PYREX® Bottle, Low Actinic, Media, Storage, Graduated, Screw Cap

Heavy duty bottle of low actinic glass for use when storing/transporting light sensitive materials. Includes a linerless, one-piece, autoclavable, orange polypropylene, plug-seal cap with drip-free pouring rings. Glass bead indicates full capacity line. Permanent white enamel graduations and marking spots. Thread size: GL 45. Neck I.D.: 29 mm I.D.

Cat. No.	Approx. Capacity (mL)	Diameter x Height (mm)	Approx. Grad. Range (mL)	Grad. Increment (mL)	Qty/Cs
51395-25	25	36.5 x 70	10-25	5	4
51395-50	50	46 x 88	20-50	10	4
51395-100	100	56 x 100	40-80	20	4
51395-250	250	70 x 138	50-200	50	4
51395-500	500	86 x 176	100-400	100	4
51395-1L	1000	101 x 225	100-900	100	4
51395-2L	2000	136 x 260	400-1800	200	4
51395-5L	5000	181 x 335	500-4500	500	1
51395-10L	10000	227 x 410	1000-9000	1000	1

Replacement caps and pouring rings are available (catalog 1395 series).

1396 PYREX Bottle, Media Storage, Screw Cap, Graduated, Square

Manufactured from PYREX borosilicate glass for chemical and thermal resistance. Square bottles are easier to handle, require less space (13% to 20%) on the shelf or in the autoclave and are ideal for mixing, sampling, and storage. Features include white enamel graduations, large marking spot and a glass ridge molded into the bottle to indicate full capacity. Includes linerless, one-piece, autoclavable, orange, polypropylene plug seal cap with drip-free pouring ring. A wide range of optional caps are available under the catalog 1395 series.

Cat. No.	Description	Approx. Capacity (mL)	Thread Finish	Approx. O.D. x Height (mm)	Grad. Range (mL)	Grad. Increment (mL)	Qty/Cs
1396-100*	Square storage bottle	100	GL 32	50 x 105	40-80	20	10
1396-250*	Square storage bottle	250	GL 45	64 x 138	50-200	50	10
1396-500*	Square storage bottle	500	GL 45	78 x 176	100-400	100	10
1396-1L*	Square storage bottle	1000	GL 45	94 x 217	100-900	100	10

*Do NOT have caps tightened immediately after autoclaving as the vacuum resulting from cooling can cause breakage. Not applicable for vacuum use.

1397 PYREX Bottle, Round Wide Mouth Media Storage, with GLS 80 Screw Cap

Wide mouth bottles are designed for heavy duty storage as well as mixing and sampling. The extra-wide mouth (69 mm inner diameter) gives easier access for pouring and removing pastes, powders, and larger items. They include a linerless, one-piece autoclavable orange polypropylene plug seal GLS 80-threaded cap with a drip-free pouring ring. The neck opening is 5 times larger than on GL 45-threaded bottles, is much easier to add or remove powders, and to clean.

Cat. No.	Approx. Capacity (mL)	Thread Finish	Approx. O.D. x Height (mm)	Grad. Range (mL)	Grad. Increment (mL)	Qty/Cs
1397-500	500	GLS 80	101 x 148	100-500	100	100
1397-1L	1000	GLS 80	101 x 218	100-1000	100	10
1397-2L	2000	GLS 80	136 x 248	400-2000	200	10
Orange Wide Mouth Screw Cap with Plug Seal						
1397-80LTC	–	GLS 80	–	–	–	20

1399 PYREX® Slim Line Storage Bottle

Round media bottles can be used for storage as well as mixing. The indented side grips ensure easy handling. The bottles are graduated to their full working volume. The narrow profile uses less space on shelves, refrigerators, and autoclaves. The new style cap has wider knurls for a more comfortable grip. It also requires 1/3 less turns to secure a closure. Not recommended for use under vacuum.

Cat. No.	Description	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Thread Finish	Qty/Cs
1399-125	Storage bottle	125	55 x 124	GL 45	4
1399-250	Storage bottle	250	66 x 158	GL 45	4
1399-500	Storage bottle	500	78 x 193	GL 45	4
1399-1L	Storage bottle	1000	93 x 253	GL 45	4

1400 PYREX Roller Bottle with 38 mm Screw Cap

Manufactured from PYREX borosilicate glass for optical clarity and mechanical strength. Can withstand repeated wet or dry sterilization. Supplied with 38 mm deep skirted rubber-lined phenolic screw cap.

Cat. No.	Description	Cell Growth Area (cm^2)	Approx. O.D. x Height (mm)	Qty/Cs
1400-285	Roller bottle	840	110 x 285	2

1500 PYREX Bottle, Reagent, Narrow Mouth, PYREX Ⓢ Stopper

With neck ground and furnished with Ⓢ stopper.

Cat. No.	Description	Approx. Capacity (mL)	Ⓢ Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
1500-125	Complete	125	19	55 x 136	6	48
1500-250	Complete	250	19	70 x 160	1	36
1500-500	Complete	500	24	86 x 198	1	24
1500-1L	Complete	1000	29	107 x 235	1	24
1500-2L	Complete	2000	29	133 x 282	1	6

For stopper only, see Cat. No. 7575.

61500 PYREXPLUS® Bottle, Reagent, Narrow Mouth, Protective Coating, PYREX Ⓢ Stopper

Features a protective PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. Bottle has a ground neck with a Ⓢ stopper.

Cat. No.	Description	Approx. Capacity (mL)	Ⓢ Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
61500-125	Complete	125	19	55 x 136	6	12
61500-250	Complete	250	19	70 x 160	1	6
61500-500	Complete	500	24	86 x 198	1	6
61500-1L	Complete	1000	29	107 x 235	1	6
61500-2L	Complete	2000	29	133 x 282	–	1

For stopper only, see Cat. No. 7575.
WARNING: Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat. Not recommended for dry heat sterilization. Will melt.

1580 PYREX Bottle, Reagent, Wide Mouth, Stopper

The wide mouth bottle is supplied with an improved stopper. Meets A.P.H.A. requirements for a water sample bottle. Not covered by Ⓢ specifications, but stopper is ground to an interchangeable 1:10 taper approximately 12.7 mm (1/2") in length.

Cat. No.	Description	Approx. Capacity (mL)	Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
1580-125	Complete	125	29	57 x 142	12	24

1585 PYREX® Bottle, Serum

Designed especially for handling and storing sterile culture media and sera where stability of the glass is of prime importance. Also suitable for storing distilled water and standard solutions. Will withstand hot air (dry) or steam (wet) sterilization. Necks are tooled to increase mechanical strength and for uniform stopper fit.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
1585-4L	4000	8	165 x 278	8
1585-9L	9000	8	203 x 413	4

1595 PYREX Bottle, Solution

These bottles are designed for storage of solutions and are ideal for media preparation. The 9.5 liter (2½ gallon) and 13.25 liter (3½ gallon) sizes are in a conventional bottle shape. The 19 liter (5 gallon) and 45.5 liter (12 gallon) sizes are similar in design to a carboy. The necks are tooled to increase mechanical strength and for uniform stopper fit.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
1595-2X	9500	12	187 x 470	4
1595-3X	13250	12	238 x 445	4
1595-5	19000	12	292 x 508	1
1595-12	45500	12	406 x 584	1

1596 PYREX Bottle, Solution, Graduated, Carboy

With double scale (liters and gallons) black enamel graduations. Graduated in 500 mL increments.

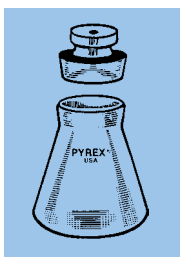
Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
1596-9L	9500	12	187 x 476	4
1596-13L	13250	12	238 x 440	4
1596-19L	19000	12	292 x 485	1

61596 PYREXPLUS® Bottle, Solution, Protective Coating, Graduated, Carboy

Bottle features a protective PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. Designed for storage of solutions, ideal for media preparation. The 9L and 13L sizes are in conventional bottle shape. The 19L size is similar in design to a carboy. Necks are tooled to increase mechanical strength and for uniform stopper fit. Graduated in 500 mL increments with black enamel.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
61596-9L	9500	12	187 x 476	–	1
61596-13L	13250	12	238 x 440	–	1
61596-19L	19000	12	292 x 485	–	1

WARNING: Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat.



1620 PYREX Bottle, Hubbard-Carmick, Specific Gravity

Use with viscous fluids, semi-solid bitumens, and emulsions.

Cat. No.	Approx. Capacity (mL)	⅀ Stopper Size	Approx. O.D. x Height (mm)	Qty/Cs
1620-25	25	24/12	40 x 57	12

Reference: ASTM Test D-70, D-1429, and D-115.

1622 PYREX® Bottle, Gay-Lussac Bottle, Specific Gravity

Unadjusted for calibration in the laboratory.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height without Stopper	Qty/Cs
1622-2	2	17 x 32	1

61626 PYREXPLUS® Bottle, Media, Storage, Screw Cap

Heavy duty bottle which can be used for storage as well as mixing and sampling. A protective PVC coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. Bottle comes complete with autoclavable, one-piece, green colored, polypropylene plug seal cap with drip-free pouring ring. Glass bead indicates full capacity line. Teal enameled graduations and marking spot. Thread size: GL 45. Neck opening: 29 mm I.D.

Cat No	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Grad. Range (mL)	Grad. Increment (mL)	Qty/Cs
61626-100	100	56 x 100	40-80	20	4
61626-250	250	70 x 138	50-200	50	4
61626-500	500	86 x 176	100-400	100	4
61626-1L	1000	101 x 225	100-900	100	4
61626-2L	2000	136 x 262	400-1800	200	4

1680 PYREX Bottle, Weighing, Tall, Short Length Joints

Tall form bottle with a joint style opening that accepts a closed bottom, hollow pennyhead style stopper.

Cat. No.	Approx. Capacity (mL)	Approx. Weight (g)	Joint	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
1680-1550	7	9	14/10	15 x 50	6	24
1680-1580	12	13	14/10	15 x 80	–	6
1680-2540	12	18	24/12	25 x 40	6	24
1680-2550	16	21	24/12	25 x 50	6	24
1680-3060	30	30	29/12	30 x 60	6	18
1680-4050	45	52	40/12	40 x 50	6	12
1680-4080	70	67	40/12	40 x 80	6	12
1680-5060	85	78	50/12	50 x 60	–	6

1682 PYREX Bottle, Weighing, Low Form, Short Length Joints

Low form bottle with a joint style opening that accepts a closed bottom hollow Pennyhead style stopper.

Cat. No.	Approx. Capacity (mL)	Approx. Weight (g)	Joint	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
1682-5030	35	53	50/12	50 x 30	2	6
1682-6030	50	71	60/12	60 x 30	2	6
1682-7033	82	111	71/15	70 x 33	2	6

1684 PYREX Bottle, Weighing, PARR, Short Length External Joints

Joints designed for use in weighing small samples. The closure style cap fits over the external ground body.

Cat. No.	Approx. Capacity (mL)	Approx. Weight (g)	Joint	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
1684-2024	4	12	24/12	20 x 24	6	12

1686 PYREX® Bottle, Weighing, Regular, Short Length External ⅀ Joints

Standard form bottle with a closure that fits over the external ground body.

Cat. No.	Approx. Capacity (mL)	Approx. Weight (g)	⅀ Joint	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
1686-2540	12	20	29/12	25 x 40	6	18
1686-2550	16	25	29/12	25 x 50	6	18
1686-3060	30	32	34/12	30 x 60	6	18
1686-4050	45	55	45/12	40 x 50	6	12
1686-4080	70	72	45/12	40 x 80	6	12
1686-40100	92	83	45/12	40 x 100	6	12

1688 PYREX Bottle, Weighing, Low Form, Short Length External ⅀ Joints

Low form bottle like the 1682 bottles but with a closure that fits over the external ground body.

Cat. No.	Approx. Capacity (mL)	Approx. Weight (g)	⅀ Joint	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
1688-5030	36	68	55/12	50 x 30	–	2
1688-6030	42	73	60/12	60 x 30	–	2

7732 PYREX Bottle, Bomb, Gum Stability

For the determination of gum stability of gasoline. The cover prevents condensed vapors in bomb stem from contaminating the sample, but does not interfere with free flow of oxygen. Made in accordance with ASTM D-525.

Cat. No.	Description	Approx. O.D. x Height (mm)	Qty/Cs
7732	Complete	50 x 105	1
7732-CO	Cover only	–	1

7735 PYREX Bottle, Ramsbottom, Bulb, Carbon Residue

Used in determining carbon residue in petroleum products. Reference: ASTM D-524.

Cat. No.	Approx. O.D. x Body Length (mm)	Stem O.D. (mm)	Qty/Pk	Qty/Cs
7735-24	24 x 57	8	12	24

GAS WASHING BOTTLES

31750 PYREX Bottle, Gas Washing, Side Inlet, Fritted Disc, ⅀ Stopper

The side tube on this bottle has a rod sealed to the bottle near the top for extra strength. Tubulation O.D. is 10 mm. The large diameter fritted disc permits the handling of large volumes of gas. (See page 22 for definition of fritted disc porosity).

Cat. No.	Description	Approx. Capacity (mL) and Porosity	⅀ Stopper Size	O.D. of Disc (mm)	Approx. O.D. x Height (mm)	Qty/Cs
31750-350C	Complete	350 C	24/40	60	70 x 290	1

1760 PYREX Bottle, Gas Washing, Tall Form, ⅀ Stopper

The ⅀ stopper incorporates a plain tip tube as the distributor. These bottles have a large hexagonal base for stability.

Cat. No.	Description	Approx. Capacity (mL)	⅀ Stopper Size	Approx. Height (mm)	Qty/Cs
1760-125	Complete	125	29/42	335	1
1760-250	Complete	250	29/42	340	1
1760-500	Complete	500	29/42	390	1

31760 PYREX® Bottle, Gas Washing, Tall Form, Fritted Disc, ⅋ Stopper

These bottles have a large hexagonal base for stability. The fritted disc provides greater efficiency and more uniform dispersion of gas bubbles for complete absorption. Tubulation O.D. is approximately 8 mm.

Cat. No.	Description	Approx. Capacity (mL) and Porosity	⅋ Stopper Size	O.D. of Disc (mm)	Approx. O.D. x Height (mm)	Qty/Cs
31760-125EC	Complete	125 EC	40/50	20	38 x 300	1
31760-125C	Complete	125 C	40/50	20	38 x 300	1
31760-250EC	Complete	250 EC	40/50	20	51 x 305	1
31760-250C	Complete	250 C	40/50	20	51 x 305	1
31760-500EC	Complete	500 EC	40/50	20	64 x 350	1
31760-500C	Complete	500 C	40/50	20	64 x 350	1
31760-500BO	Bottle only	500	–	20	–	1
31760-500ES	Stopper only	500 EC	–	20	–	1
31760-500S	Stopper only	500 C	–	20	–	1

31770 PYREX Bottle, Gas Washing, Tall Form, Fritted Cylinder, ⅋ Stopper

Stopper is equipped with a 12 mm diameter fritted cylinder instead of a disc as the distributor.

Cat. No.	Description	Approx. Capacity (mL) and Porosity	⅋ Stopper Size	Approx. O.D. x Height (mm)	Qty/Cs
31770-125EC	Complete	125 EC	29/42	38 x 298	1
31770-125C	Complete	125 C	29/42	38 x 298	1
31770-250EC	Complete	250 EC	29/42	51 x 290	1
31770-250C	Complete	250 C	29/42	51 x 290	1
31770-500EC	Complete	500 EC	29/42	63 x 340	1
31770-500C	Complete	500 C	29/42	63 x 340	1

1900 PYREX Bottle, Nesbitt, Absorption, Stopper

For the absorption of CO_2 in carbon determination. Weight, when filled, is approximately 135 grams. A turn of the interchangeable stopper closes both inlet and outlet tubes.

Cat. No.	Approx. Height (mm)	Inlet/Outlet Tube O.D. (mm)	Qty/Pk	Qty/Cs
1900-165	155	6	1	2

BURETS

2094 PYREX Buret, Colored Scale, Dispensing, Straight Bore PTFE Stopcock Plug

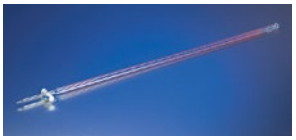
Used when dispensing large volumes of liquids rapidly and accurately. Made from close tolerance, accurate bore tubing with uniform walls, these burets have a permanently colored scale. Tips are carefully drawn and ground to reduce chipping. Provided with a PTFE stopcock plug to reduce freezing and eliminate lubricant contamination. The smooth micro-finish of the stopcock barrel assures a precision fit and optimum leak-resistant performance.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Stopcock Bore (mm)	Qty/Cs
2094-250	250	1	2.0	33 x 550	4	1
2094-500	500	5	2.5	41 x 675	4	1
2094-1L	1000	10	5.0	50 x 810	6	1

2103 PYREX® Buret, Colored Scale, Class A, PTFE Stopcock Plug

The capacity tolerance on these burets is established by ASTM E-287 and they are calibrated in accordance with ASTM E-542. Tips are carefully drawn from accurate bore tubing to insure proper drainage rates. This buret has colored markings, fine, sharp lines, and large easy-to-read numbers. The stopcock barrel has a smooth micro-finish to assure leak-resistant performance. Each buret is supplied with a dust cover. All sizes are furnished with a 2 mm bore stopcock plug.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Cs
2103-10	10	.05	.02	9 x 560	1
2103-25	25	.10	.03	12 x 560	1
2103-50	50	.10	.05	14 x 750	1
2103-100	100	.20	.10	18 x 752	1



2105 PYREX Buret, Serialized/Certified Class A, Colored Scale, PTFE Stopcock Plug

Calibrated to Class A tolerances in accordance with ASTM D-511, E-542, and ASTM E-287. Each buret is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. This buret has colored markings with fine, sharp lines, and large easy-to-read numbers. Each buret is supplied with a dust cover. All sizes are furnished with a 2 mm bore stopcock plug.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Cs
2105-10	10	.05	.02	9 x 560	1
2105-25	25	.10	.03	12 x 560	1
2105-50	50	.10	.05	14 x 750	1
2105-100	100	.20	.10	18 x 752	1

2110 PYREX Buret, Rotaflo®, Dual Plug, White Enamel Markings, with Rotaflo Stopcock

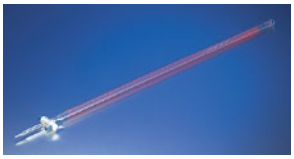
Buret with automatic zero, Rotaflo dual stopcock. The dual stopcock helps eliminate titration errors.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	GP Plug	Qty/Cs
2110-25	25	.10	.06	12 x 560	3	1
2110-50	50	.10	.10	14 x 760	3	1

2116 PYREX Buret, Economy Grade, PTFE Locking Stopcock

An economical buret designed to reduce replacement costs by providing replaceable components. These sturdy, durable burets have tooled tops and bottoms and white enamel graduations. The screw thread locking PTFE stopcock with ground tip is compatible with Cat. No. 2116 existing buret bodies. Simply replace the stopcock assembly to benefit from the improved design. The new replaceable stopcock assembly features a screw thread locking nut and collar which ensures that the stopcock cannot fall out in use. Cat. No. 2116-GTO replaceable tip has a ground end which provides a better grip and helps prevent the tip from falling out.

Cat. No.	Description	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/ Pk	Qty/ Cs
2116-25	Complete	25	.10	.06	14 x 450	2	6
2116-50	Complete	50	.10	.10	16 x 662	2	6
2116-25BO	Body only	25	.10	.06	–	2	6
2116-50BO	Body only	50	.10	.10	–	2	6
2116-GTO2	Tip only with ground end and non-ground end (for use with Cat. No. 2116-LSO only)	–	–	–	–	–	12
2116-LSO	Locking stopcock only	–	–	–	–	–	1
2116-TO	Tip only (for use with Cat. No. 2116-LSO only)	–	–	–	–	–	12



2122A PYREX® Buret, Colored Scale, Straight Bore PTFE Stopcock

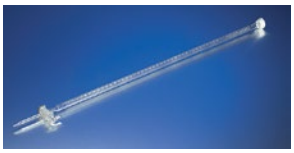
Burets are suitable for use in school and institutional laboratories not requiring the accuracy of our Class A models. Supplied with a PTFE stopcock plug. The microfinish of the barrel provides a precision fit. The tips are carefully drawn for accuracy to insure proper drainage rate. Each buret is supplied with a dust cover. All sizes furnished with a 2 mm bore stopcock plug. This buret has durable colored markings.

Cat. No.	Description	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Stopcock Bore (mm)	Qty/Cs
2122A-10	Complete	10	.05	.04	9 x 560	2	1
2122A-25	Complete	25	.10	.06	12 x 560	2	1
2122A-50	Complete	50	.10	.10	14 x 750	2	1
2122A-100	Complete	100	.20	.20	18 x 752	2	1

2128 PYREX Buret, Micro, Precision Bore, Funnel Top, Class A, Straight ⅌ Stopcock, White Enamel Markings

These burets are designed for precise analytical methods in microchemistry. Precision bore tubing throughout the body assures accuracy between any two points. Funnel top facilitates addition of reagents by pouring, or by suction from below, through a rubber-stoppered tube. Tips are tapered to assure smooth flow. Stopcocks turn freely, yet give positive control and are of 2 mm bore. The capacity tolerance on these burets is established by ASTM E-1189 and are calibrated in accordance with ASTM E-542.

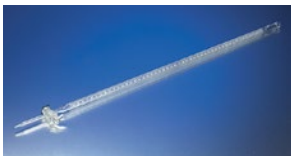
Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	⅌ Stopcock Bore (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
2128-5	5	.01	.01	2	7 x 735	1	2
2128-10	10	.02	.02	2	8 x 735	1	2



2130 PYREX Buret, Precision Bore, Class A, Straight Bore ⅌ Stopcock, Colored Markings

Precision bore tubing is used to assure accuracy between any two points. Durable colored graduations are sharply defined and easy to read. Carefully ground ⅌ stopcock gives precise control. Each buret is supplied with a dust cover. All sizes furnished with a 2 mm bore stopcock plug. The capacity tolerance on these burets is established by ASTM E-287 and they are calibrated in accordance with ASTM E542.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅌ Stopcock Bore (mm)	Qty/Cs
2130-10	10	.05	.02	9 x 565	2	1
2130-25	25	.10	.03	12 x 565	2	1
2130-50	50	.10	.05	14 x 755	2	1
2130-100	100	.20	.10	18 x 755	2	1

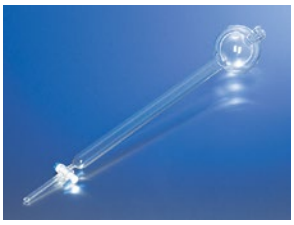


2135 PYREX Buret, Serialized/Certified, Class A, Precision Bore, Straight ⅌ Stopcock

Precision bore tubing is used to assure accuracy between any two points. Manufactured to Class A tolerances in accordance with ASTM E-542 and ASTM E-287. Each buret is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. Durable white graduations are sharply defined and easy to read. Carefully ground ⅌ stopcock gives precise control Each buret is supplied with a dust cover. All sizes furnished with a 2 mm bore stopcock plug.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅌ Stopcock Bore (mm)	Qty/Cs
2135-10	10	.05	.02	9 x 560	2	1
2135-25	25	.10	.03	12 x 560	2	1
2135-50	50	.10	.05	14 x 755	2	1
2135-100	100	.20	.10	18 x 752	2	1

COLUMNS



2146 PYREX® Column, Chromatography Column with Reservoir, PTFE Stopcock

Reservoir at top with ȿ 2 mm bore PTFE plug.

Cat. No.	Description	Approx. Reservoir Capacity (mL)	Approx. Column O.D. x Height (mm)	Qty/Cs
2146-10	Column	200	13 x 250	1
2146-19	Column	250	22 x 300	1

2150 PYREX HPLC Reservoir, Single Cavity

PYREX HPLC reservoirs have a central cavity for a mobile phase inlet reservoir, an autoclavable plastic coat that absorbs UV up to 385 nm, and a GL 45 thread finish. These may be used with our 3-hole cap (Cat. No. 1395-3H).

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Cs
2150-1L	1000	120 x 260	1
2150-2L	2000	150 x 325	1
2150-5L	5000	195 x 385	1
2150-10L	10000	240 x 465	1

2153 PYREX Atomizer, Chromatographic Reagent

For use in spraying reagents in thin layer chromatography. With full length ȿ 24/40 joint between reservoir and spraying device.

Cat. No.	Description	Approx. Capacity (mL)	Approx. Height (mm)	Qty/Cs
2153-125	Atomizer	125	188	1
2153-250	Atomizer	250	208	1

38450 PYREX Apparatus, Extraction, Chromatographic, Coarse Fritted Disc

These tubes are designed for general chromatographic analysis. The tops are tooled for rubber stopper fit and the tubes are fabricated with sealed-in coarse porosity fritted discs. The outflow tubes are large in diameter to eliminate the smearing of the definition bands of effluent caused by the tube being filled, and the solvent mixed before being expelled. The outflow tubes are long enough to protrude through a rubber stopper.

Cat. No.	Approx. I.D. x Length (mm)	Stopper No.	Qty/Pk	Qty/Cs
38450-10	10.5 x 300	00	1	8
38450-20	22.0 x 400	4	1	6
38450-40	44.0 x 600	10	–	1

38452 PYREX Apparatus, Extraction, Chromatographic, Coarse Fritted Disc, ȿ PTFE Stopcock

The column is designed for general chromatographic column separations. The top is tooled for a rubber stopper fit. A ȿ PTFE stopcock is provided for better column control. A coarse porosity fritted disc is sealed into the column. The volume below the disc is minimized to prevent mixing and to allow clear, sharp, band definition.

Cat. No.	Approx. I.D. x Length (mm)	Rubber Stopper No.	ȿ Stopcock Plug Size	Qty/Pk	Qty/Cs
38452-10	10 x 300	00	2	2	4

CONCENTRATORS

2157 PYREX® Concentrator, Kuderna-Danish Apparatus, Without Hooks, ⧩ Joints

A Kuderna-Danish concentrator supplied with Keck clamps instead of spring hooks. The complete apparatus consists of a 3-Ball Snyder column (with 24/40 joints), a flask (with ⧩ 24/40 top and ⧩ 19/22 lower joint), and a graduated tube (with ⧩ 19/22 joints). All columns have venting dimples. The 250 mL and 500 mL completes include a 10 mL tube. The 1,000 mL complete has a 25 mL tube.

Cat. No.	Description	Height (mm)	Total Joint Size	⧩ Inner Joint Size	⧩ Outer Qty/Pk	Qty/Cs
2157-500*	500 mL complete	615	19/22	24/40	–	1
2157-500FO	500 mL flask only	–	19/22	24/40	1	4
2157-10TO**	10 mL tube only	–	–	19/22	1	6

*2157-500: The completes include 1 each blue and green Keck clamps.
** 2157-10TO: Graduations: 0-2 mL in 0.1 mL increments. 3 mL to capacity in 1.0 mL increments.

2157-100T/TJ PYREX Concentrator Tube, 100 mL

The innovative PYREX brand concentrator tube combines the concepts of a Kuderna-Danish flask and tube into a one-piece glass apparatus. Designed for use with the PYREX Accelerated One-Step extractor/concentrator, it comes in both jacketed and unjacketed versions. The 100 mL capacity permits sufficient solvent capacity for the full extraction process. The jacketed version permits circulation of hot water through the jacket to boil the solvent during extraction/concentration. The bottom portion of the tube is never heated, so the sample won't boil dry. The unjacketed version can be placed in a hot water bath for solvent heating. Threaded tubulations are 8 mm I.D.

Cat. No.	Description	Capacity (mL)	Qty/Cs
2157-100TJ	Concentrator tube, jacketed	100	1
2158-CW	Hardware Asst. for tubes with threaded tubulations (6 connectors and 12 washers)	–	6

*Supplied with 2 connectors, 2 washers, and 1 Keck clamp.

2158 PYREX Concentrator, Kuderna-Danish Apparatus, ⧩ Joints

The complete apparatus consists of a 3-Ball Snyder column (with ⧩ 24/40 joints), a flask (with ⧩ 24/40 tops and ⧩ 19/22 lower joint), and a graduated tube (with ⧩ 19/22 joints). If further concentration is desired, select a 2-Ball column (Cat. No. 2158-2CO) and combine with the Kuderna-Danish tube of your choice. The 250 mL and 500 mL completes include a 10 mL tube. The 1000 mL complete includes a 25 mL tube.

Cat. No.	Description	Total Height (mm)	⧩ Inner Joint Size	⧩ Outer Joint Size	Length (mm)	Qty/Pk	Qty/Cs
2158-250[a]	250 mL complete	594	19/22	24/40	–	–	1
2158-500[b]	500 mL complete	615	19/22	24/40	–	–	1
2158-250FO[c]	250 mL flask only	220	19/22	24/40	–	1	4
2158-500FO[b]	500 mL flask only	–	19/22	24/40	–	–	4
2158-3CO	3 Ball Snyder column	–	24/40	24/40	305	–	1
2158-10TO[d]	10 mL tube only	–	–	19/22	–	1	6
2158-25TO[d]	25 mL tube only	–	–	19/22	–	1	6

[a]Each includes a pair of 1 3/8" stainless steel springs.
[b]The 500 mL includes springs and two sizes of Keck clamps.
[c]Each includes a pair of 1 3/8" stainless steel springs.
[d]Graduations: 0 mL to 2 mL are in 0.1 mL increments. 3 mL to capacity are in 1.0 mL increments.

2159 PYREX® Head, Solvent Recovery

The solvent recovery head allows for condensation and collection of solvents while performing concentrations with a Kuderna-Danish concentrator. 96% to 99% solvent recovery allows for concentrations to be done outside the hood. Unique, simple design allows use with existing condensers and flasks.

Cat. No.	Description	⅀ Inner Joint Size	⅀ Outer Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
2159-24	Solvent recovery head	24/40	24/40	150	1	4

CONES

2180 PYREX Cone, Imhoff, Sediment, Blunt Tip

For use with heavy sediments, where ability to read small volumes is unimportant. Graduated from 0 mL to 1 mL in 0.1 mL increments, 1 to 10 mL in 0.5 mL, and 10 mL to 40 mL in 1 mL increments; also marked at 1000 mL. The blunt tip increases its ruggedness and cleaning ease.

Cat. No.	Approx. Height (mm)	Approx. O.D. at Top (mm)	Qty/Pk	Qty/Cs
2180-439	435	110	2	4

CONDENSERS

2155 PYREX Condenser, Distilling, Drip Tip, ⅀ Joints

This distilling column is simple in design and easy to use. It is useful for a wide range of applications in the lab, particularly in fractionation.

Cat. No.	Approx. Length (mm)	⅀ Joint Size	Approx. Jacket O.D. x Length (mm)	Tubulation O.D. (mm)	Qty/Cs
2155-14	274	14/20	28 x 190	10	1
2155-19	283	19/22	28 x 190	10	1

*This column is also a replacement for organic chemistry kits (Cat. Nos. 6949 through 6949K).

52300 PYREX Condenser, Tube, Low Actinic, Drip Tip, ⅀ Joint

A simple air condenser, useful for condensation of materials with boiling points above 150°C, with an inner ⅀ 24/40 drip tip. Low actinic glass protects light sensitive materials.

Cat. No.	Approx. O.D. x Length (mm)	⅀ Inner Joint Size	Qty/Cs
52300-650	13 x 650	24/40	1

2340 PYREX Condenser, Liebig, Sealed Inner Tube

A general purpose condenser that can be used for distillation and extraction. Although the condensing area per unit length of the jacket is low, the large capacity water jacket gives efficient cooling. Tubulation O.D. is approximately 10 mm. The adapter end is tooled for uniform stopper fit, accommodating a No. 3 rubber stopper.

Cat. No.	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Cs
2340-200	41 x 200	345	1

2360 PYREX Condenser, Liebig, Drip Tip, Inner ⅀ Joint

A general purpose condenser that can be used for distillation, refluxing, and extraction operations. With inner ⅀ joint at the bottom with a drip tip. The tubulation O.D. is approximately 10 mm.

Cat. No.	⅀ Inner Joint Size	Rubber Stopper No.	Approx Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
2360-400	24/40	3	41 x 400	545	1	4
2360-500	24/40	3	41 x 500	645	–	1

2400 PYREX® Condenser, Liebig, Drip Tip, Inner and Outer Joints

A general purpose condenser that can be used for distillation and extraction. Suitable for use in vacuum distillations. With the outer joint at the top and the inner joint at the bottom with a drip tip. The tubulation O.D. is approximately 10 mm.

Cat. No.	Inner Joint Size	Outer Joint Size	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
2400-200	19/38	19/38	41 x 200	350	–	1
2400-300	24/40	24/40	41 x 300	450	1	4
2400-400	24/40	24/40	41 x 400	550	1	4

2401 PYREX Condenser, Column, with Indentations, Micro, Drip Tip, Joints

For use on small assemblies. The tubulation O.D. is approximately 10 mm.

Cat. No.	Approx. Length (mm)	Inner Joint Size	Outer Joint Size	Approx. Jacket O.D. x Length (mm)	Qty/Cs
2401-24	309	24/40	24/40	38 x 185	1

*This condenser is also a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).

2480 PYREX Condenser, Allihn, Drip Tip, Inner and Outer Joints

A widely used condenser with greater surface area than the corresponding Liebig type. With the outer joint at the top and the inner joint at the bottom with a drip tip. Suitable for use in vacuum distillations. The tubulations have an O.D. of approximately 10 mm.

Cat. No.	No. of Bulbs	Inner Joint Size	Outer Joint Size	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
2480-200	3	19/38	19/38	41 x 200	350	–	1
2480-300	5	24/40	24/40	41 x 300	450	1	6
2480-400	6	24/40	24/40	41 x 400	550	1	6
2480-500	8	24/40	24/40	41 x 500	650	–	1
2480-600	10	29/42	29/42	41 x 600	750	–	1

2490 PYREX Condenser, Cold Finger, Inner Joint

A simple condenser, of relatively low efficiency, often used to regulate refluxing by adjusting the flow of air or water through it (dephlegmation). The tubulation O.D. is approximately 10 mm.

Cat. No.	Approx. Height (mm)	Joint Size	Approx. Jacket O.D. x Length (mm)	Qty/Cs
2490-24	176	24/40	12 x 86	1

*This condenser is also a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).

2560 PYREX Condenser, Graham, Drip Tip, Inner and Outer Joints

This condenser has a high surface area per unit length of jacket. Primarily used in vacuum distillations. With the outer joint at the top and the inner joint at the bottom with a drip tip. The tubulation O.D. is approximately 10 mm.

Cat. No.	Inner Joint Size	Outer Joint Size	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
2560-200	19/38	19/38	41 x 200	350	–	1
2560-300	24/40	24/40	41 x 300	450	1	6
2560-400	24/40	24/40	41 x 400	550	1	4
2560-500	24/40	24/40	41 x 500	650	1	4

2640 PYREX® Condenser, Friedrichs, Drip Tip, Inner and Outer ⧩ Joints

The Friedrichs type condenser affords very efficient operation. The helical inner tube fits closely within the jacket. The vapor tube is sealed to the jacket at an angle of 75° and has an outer ⧩ 24/40 joint.

Cat. No.	Approx. O.D. x Length (mm)	⧩ Inner Joint Size	⧩ Outer Joint Size	Qty/Pk	Qty/Cs
2640-350	50 x 325	24/40	24/40	1	4

2700 PYREX Condenser, West

This condenser is designed with a heavy-wall outer jacket to provide a sturdy, long-lasting unit, while the inner tube has a thinner wall for efficient heat transfer. The tubulations are on the same side to reduce breakage, and the adapter ends are all tooled for No. 3 rubber stopper fit. The tubulation O.D. is approximately 10 mm.

Cat. No.	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Cs
2700-200	19 x 200	345	1

2705 PYREX Condenser, West, Drip Tip, Inner and Outer ⧩ Joints

The tubulation O.D. is approximately 10 mm.

Cat. No.	Approx. Jacket O. D. x Length (mm)	⧩ Inner Joint Size	⧩ Outer Joint Size	Approx. Length (mm)	Qty/Pk	Qty/Cs
2705-14	18 x 190	14/20	14/20	283	–	1
2705-19*	18 x 190	19/22	19/22	283	2	4

*This condenser is a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).

2800 PYREX Condenser, West, Drip Tip, Inner and Outer ⧩ Joint

This condenser is designed with a heavy-wall outer jacket to provide a sturdy, long-lasting unit, while the inner tube has a thinner wall for efficient heat transfer. Tubulations are on the same side to reduce breakage. With the outer ⧩ joint at the top and the ⧩ inner joint at the bottom with a drip tip. The tubulation O.D. is approximately 10 mm.

Cat. No.	⧩ Inner Joint Size	⧩ Outer Joint Size	Approx. Jacket O.D. x Length (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
2800-300	24/40	24/40	18 x 300	450	1	4

CYLINDERS

2962 PYREX Cylinder, Hydrometer Jar

Breakage is minimized by the heavy wall construction. The large hexagonal base, sealed to the cylinder body, increases stability. Meets ASTM specifications D-287 and E-100.

Cat. No.	Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
2962-100	100	29 x 254	1	18
2962-250	250	39 x 340	1	18
2962-300	300	39 x 381	1	12
2962-500	500	50 x 390	1	12
2962-1L	1000	64 x 465	1	1

2982 PYREX® Cylinder, Single Metric Scale, PYREX ⅋ Stopper, Graduated, To Contain

Calibrated "to contain" in accordance with ASTM E-1272 and ASTM E-542. Useful as a mixing cylinder. Each features the PYREX stopper. Graduations are in durable white enamel. See Cat. No. 3002 for the equivalent cylinder supplied with a Corning test certificate.

Cat. No.	Description	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	⅋ Stopper No.	Qty/Pk	Qty/Cs
2982-10	Complete	10	0.1	0.2	13 x 195	9	1	24
2982-25	Complete	25	0.2	0.3	18 x 225	13	1	18
2982-50	Complete	50	1.0	0.5	24 x 255	16	1	12
2982-100	Complete	100	1.0	1.0	29 x 295	16	1	8
2982-250	Complete	250	2.0	2.0	39 x 385	22	1	8
2982-500	Complete	500	5.0	4.0	50 x 445	27	1	6
2982-1L	Complete	1000	10.0	6.0	64 x 520	32	–	1
2982-2L	Complete	2000	20.0	12.0	83 x 590	38	–	1

For stopper only, see Cat. No. 7650.

3002 PYREX Cylinder, Serialized/Certified, Class A, Single Metric Scale, Graduated, To Contain, ⅋ PYREX Stopper

Calibrated "to contain" in accordance with ASTM E-1272 and ASTM E-542. Useful as a mixing cylinder. Each cylinder is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. Each features the PYREX stopper. Graduation markings are in durable white enamel.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	⅋ Stopper No.	Qty/Cs
3002-10	10	0.1	.10	13 x 195	9	1
3002-25	25	0.2	.17	18 x 225	13	1
3002-50	50	1.0	.25	24 x 255	16	1
3002-100	100	1.0	.50	29 x 295	16	1
3002-250	250	2.0	1.0	39 x 385	22	1
3002-500	500	5.0	2.0	50 x 445	27	1
3002-1L	1000	10.0	3.0	64 x 520	32	1
3002-2L	2000	20.0	6.0	83 x 550	38	1

For stopper only, see Cat. No. 7650.

3012 PYREX Cylinder, Single Metric Scale, Outer ⅋ Joint, Graduated, To Contain

Calibrated "to contain." Equipped with a ⅋ 24/40 outer joint, these cylinders are particularly useful as distilling receivers. Graduation markings are in durable white enamel. Supplied without stoppers.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3012-50	50	1.0	0.5	24 x 255	1	1
3012-100	100	1.0	1.0	29 x 295	1	1
3012-250	250	2.0	2.0	39 x 380	1	1

3022 PYREX® Cylinder, Single Metric Scale, Graduated, To Contain

Calibrated "to contain," with white enamel graduations. The 100 mL capacity is in accordance with ASTM E-133 and E-1272. The 10 mL size has a funnel top. Bumper guards are supplied with 25 mL through 2000 mL sizes inclusive.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3022-10	10	0.1	0.2	13 x 178	1	24
3022-25	25	0.2	0.3	18 x 192	1	18
3022-50	50	1.0	0.5	24 x 225	1	18
3022-100	100	1.0	1.0	29 x 254	1	12
3022-250	250	2.0	2.0	39 x 340	1	12
3022-500	500	5.0	4.0	50 x 392	1	8
3022-1L	1000	10.0	6.0	64 x 465	1	1
3022-2L	2000	20.0	12.0	83 x 520	1	1

3023 PYREX Cylinder, Double Metric Scale, Class A, Graduated, To Deliver

Cylinders are calibrated "to deliver" in accordance with ASTM E-1272 and ASTM E-542. The double scale, numbered up and down, is in durable white enamel. Supplied with shock absorbing polyethylene bumper guards.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3023-25	25	0.2	.17	18 x 192	1	18
3023-50	50	1.0	.25	24 x 225	1	18
3023-100	100	1.0	.50	29 x 254	1	12
3023-250	250	2.0	1.0	39 x 340	1	12
3023-500	500	5.0	2.0	50 x 390	1	8
3023-1L	1000	10.0	3.0	64 x 465	–	1
3023-2L	2000	20.0	6 .0	83 x 520	–	1

3024 PYREX Cylinder, Single Metric Scale, Graduated, To Deliver

Calibrated "to deliver," with white enamel graduations. Bumper guards are supplied on 25 mL through 2000 mL sizes.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. ± (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3024-5*	5	0.1	0.1	12 x 117	1	12
3024-10*	10	0.1	0.2	13 x 177	1	24
3024-25	25	0.2	0.3	18 x 192	1	18
3024-50	50	1.0	0.5	24 x 225	1	18
3024-100	100	1.0	1.0	29 x 254	1	12
3024-250	250	2.0	2.0	39 x 340	1	12
3024-500	500	5.0	4.0	50 x 390	1	8
3024-1L	1000	10.0	6.0	64 x 465	1	1
3024-2L	2000	20.0	12.0	83 x 520	1	1
3024-4L	4000	50.0	29.0	110 x 585	–	1
3024-PACK**	–	–	–	–	Assortment pack	

*Funnel top.
**The assortment pack includes one each of the 10 mL, 25 mL, 50 mL, 100 mL, and 250 mL sizes.

63024 PYREXPLUS® Cylinder, Single Metric Scale, Protective Coating, Graduated, To Deliver

Cylinder features a protective polymer coating for longer product life and safety. Autoclavable (121°C) and resistant to thermal shock. The cylinder is calibrated "to deliver." Bumper guards not supplied.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
63024-100	100	1.0	1.0	29 x 254	1	4
63024-250	250	2.0	2.0	39 x 340	1	4
63024-500	500	5.0	4.0	50 x 390	1	4
63024-1L	1000	10.0	6.0	64 x 460	1	4
63024-2L	2000	20.0	12.0	83 x 520	1	2

3025 PYREX® Cylinder, Double Metric Scale, Economy, Graduated, To Contain

Calibrated "to contain." A less costly cylinder, designed for those institutions performing many general laboratory procedures. No bumper guards supplied.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3025-10	10	0.1	17 x 140	1	24
3025-25	25	0.2	20 x 144	1	18
3025-50	50	1.0	28 x 166	1	18
3025-100	100	1.0	29 x 254	1	12
3025-250	250	2.0	39 x 340	1	12
3025-500	500	5.0	50 x 390	1	8
3025-1L	1000	10.0	64 x 465	1	1
3025-2L	2000	20.0	83 x 520	1	1

3026 PYREX Cylinder, Double Metric Scale, Class A, Graduated, To Deliver

Cylinders are calibrated "to deliver" in accordance with ASTM E-1272 and ASTM E-542. The double scale, numbered up and down, is in a durable blue enamel. Supplied with shock absorbing polyethylene bumper guards.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3026-25	25	0.2	.17	18 x 192	1	18
3026-50	50	1.0	.25	24 x 225	1	18
3026-100	100	1.0	.50	28 x 254	1	12
3026-250	250	2.0	1.0	39 x 340	1	12
3026-500	500	5.0	2.0	50 x 390	1	8
3026-1L	1000	10.0	3.0	64 x 465	–	1
3026-2L	2000	20.0	6.0	83 x 520	–	1

3042 PYREX Cylinder, Lifetime Red™, Single Metric Scale, Graduated, To Contain

Calibrated "to contain." The scale and figures are durable white enamel, which stand out clearly against the red color-band on these Lifetime Red cylinders. The 10 mL size has a funnel top. Bumper guards are supplied with 100 mL through 2000 mL inclusive. The 100 mL size is made in accordance with ASTM E-133 and E-1272.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3042-10	10	0.1	0.2	13 x 178	1	24
3042-100	100	1.0	1.0	29 x 254	1	12
3042-500	500	5.0	4.0	50 x 390	1	8
3042-1L	1000	10.0	6.0	64 x 465	1	1
3042-2L	2000	20.0	12.0	83 x 520	1	1

For the same cylinder, but with a built-in glass bumper guard, see Cat. No. 3046.

3044 PYREX® Cylinder, Lifetime Red™, Single Metric Scale, Double Pourout, Graduated, To Contain

Calibrated "to contain." The scale and figures are durable white enamel which stand out clearly against the red color-band on these Lifetime Red cylinders. The cylinder is a Tuttle type of low form for stability and features a double pourout for convenience.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3044-50	50	1.0	0.5	29 x 148	1	12
3044-100	100	2.0	1.0	39 x 157	1	12

3046 PYREX Cylinder, Lifetime Red, Single Metric Scale, Graduated, To Contain

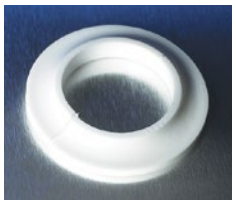
Calibrated "to contain." A reinforced bead of glass near the top helps to reduce breakage, if the cylinder falls over. The 100 mL cylinder is in accordance with ASTM E-133 and E-1272.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3046-10	10	0.1	0.2	13 x 179	1	24
3046-25	25	0.2	0.3	18 x 205	1	18
3046-50	50	1.0	0.5	24 x 238	1	18
3046-100	100	1.0	1.0	29 x 267	1	12
3046-250	250	2.0	2.0	39 x 353	1	12

3062 PYREX Cylinder, Serialized/Certified, Class A, Single Metric Scale, Graduated, To Deliver

Calibrated "to deliver" in accordance with ASTM E-1272 and ASTM E-542. Each cylinder is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. Permanent white graduations are easy to read. Bumper guards are supplied with 25 mL through 2000 mL inclusive. The 10 mL size has a funnel top.

Cat. No.	Capacity (mL)	Grad. Increment (mL)	ASTM Tol. (± mL)	Approx. O.D. x Height (mm)	Pk/Cs	Qty/Cs
3062-10	10	0.1	0.10	13 x 178	1	1
3062-25	25	0.2	0.17	18 x 192	1	1
3062-50	50	1.0	0.25	24 x 225	1	1
3062-100	100	1.0	0.50	29 x 254	1	1
3062-250	250	2.0	1.0	39 x 340	1	1
3062-500	500	5.0	2.0	50 x 390	1	1
3062-1L	1000	10.0	3.0	64 x 465	1	1
3062-2L	2000	20.0	6.0	83 x 520	1	1

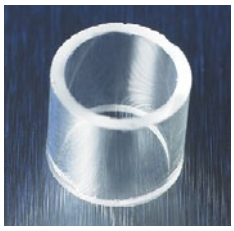


3066 PYREX Cylinder, Bumper Guard

A polyethylene shock absorbing ring designed to reduce breakage of cylinders. For best results, slide the ring toward the top to absorb shock should the cylinder be accidentally upset.

Cat. No.	Fits Cylinder Capacity (mL)	Qty/Cs
3066-25	25	1
3066-50	50	1
3066-100	100	1
3066-250	250	1
3066-500	500	1
3066-1L	1000	1

CLONING CYLINDERS



3166 PYREX® Cylinder, Cloning

Clone a single cell or group of cells by surrounding them with this glass cylinder. Dip the end of the cylinder into a sterile silicone grease before pressing to the bottom of a culture flask to create an isolated well.

Cat. No.	Description	Approx. O.D. x Height (mm)	Qty/Cs
3166-6	Cloning Cylinder	6 x 8	125
3166-8	Cloning Cylinder	8 x 8	125
3166-10	Cloning Cylinder	10 x 10	125

DESICCATORS

3081 PYREX 2.4L Desiccator, Small Knob Top

This 2.4L PYREX desiccator is designed for general analytical work. The sturdy knob makes the cover easy to handle. Approximate bowl volume is 2400 mL. For replacement cover, see Cat. No. 3081-150CO. For lower part only, see Cat. No. 3081-150LO.

WARNING: Do not heat or subject to pressure. Not for vacuum applications.

Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3081-150	Complete	172	81	252	140	1
3081-150CO	Cover only	172	–	98	–	1
3081-150LO	Lower only	172	81	154	140	1

3081 PYREX 5.8L Desiccator, Large Knob Top

This 5.8L desiccator is designed for general analytical work. The large sturdy knob makes the cover easy to handle. Approximate bowl volume is 5800 mL. For replacement cover, see Cat. No. 3081-200CO. For lower part only, see Cat. No. 3081-200LO.

WARNING: Not for vacuum applications. Do not heat or subject to pressure.

Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3081-200	Complete	223.5	115	309	190	1
3081-200CO	Cover only	223.5	–	107	–	1
3081-200LO	Lower only	223.5	115	202	190	1

3081 PYREX 10.5L Desiccator, Large Knob Top

This 10.5L desiccator is designed for general analytical work. The large sturdy knob makes the cover easy to handle. Approximate bowl volume is 10,500 mL. For replacement cover, see Cat. No. 3081-250CO. For lower part only, see Cat. No. 3081-250LO.

WARNING: Not for vacuum applications. Do not heat or subject to pressure.

Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3081-250	Complete	273.5	120	357	230	1
3081-250CO	Cover only	273.5	–	122	–	1
3081-250LO	Lower only	273.5	120	235	230	1

3121 PYREX® 2.4L Desiccator, Small Top, with 24/29 Standard Taper Stopcock

This 2.4L desiccator has a rugged 24/29 standard taper stopcock with tooled hose connection that serves as the vacuum inlet. It is designed so that its manipulation is not affected by the vacuum. To introduce vacuum into the desiccator, loosen the stopcock to disengage the PTFE plug from contact with the glass. A half turn from this position closes the desiccator. This design eliminates the need for grease. The tubulation O.D. is approximately 10 mm. Approximate bowl volume capacity is 2400 mL. For replacement bowl, see Cat. No. 3081-150LO; for cover, see Cat. No. 3121-150CO; for replacement stopcock, see Cat. No. 3121-STPK.

WARNING: Do not heat or subject to pressure. Rated 1-atmosphere vacuum.

Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3121-150	Complete	172	81	239	140	1
3121-150CO	Cover only	172	–	85	–	1

3121 PYREX 5.8L Desiccator, Large Top, with 24/29 Standard Taper Stopcock

This 5.8L desiccator has a rugged 24/29 standard taper stopcock with tooled hose connection that serves as the vacuum inlet. It is designed so that its manipulation is not affected by the vacuum. To introduce vacuum into the desiccator, loosen the stopcock to disengage the PTFE plug from contact with the glass. A half turn from this position closes the desiccator. This design eliminates the need for grease. The tubulation O.D. is approximately 10 mm. Approximate bowl volume capacity is 5800 mL. For replacement bowl, see Cat. No. 3081-200LO; for cover, see Cat. No. 3121-200CO; for replacement stopcock, see Cat. No. 3121-STPK.

WARNING: Do not heat or subject to pressure. Rated 1-atmosphere vacuum.

Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3121-200	Complete	223.5	115	296	190	1
3121-200CO	Cover only	223.5	–	94	–	1

3121 PYREX 10.5L Desiccator, Large Top, with 24/29 Standard Taper Stopcock

This 10.5L desiccator has a rugged 24/29 standard taper stopcock with tooled hose connection that serves as the vacuum inlet. It is designed so that its manipulation is not affected by the vacuum. To introduce vacuum into the desiccator, loosen the stopcock to disengage the PTFE plug from contact with the glass. A half turn from this position closes the desiccator. This design eliminates the need for grease. The tubulation O.D. is approximately 10 mm. Approximate bowl volume capacity is 10,500 mL. For replacement bowl, see Cat. No. 3081-250LO; for cover, see Cat. No. 3121-250CO; for replacement stopcock, see Cat. No. 3121-STPK.

WARNING: Do not heat or subject to pressure. Rated 1-atmosphere vacuum.

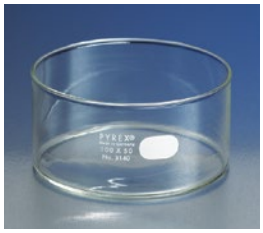
Cat No.	Description	Approx. I.D. of Ground Flange (mm)	Approx. Chamber Depth (mm)	Approx. Height (mm)	Plate Diameter (mm)	Qty/Cs
3121-250	Complete	273.5	120	344	230	1
3121-250CO	Cover only	273.5	–	109	–	1

3121 PYREX Replacement 24/29 Stopcock with Hose Connector

This is a replacement 24/29 standard taper stopcock with a tooled #10 hose connection. The plug material is PTFE, and is a suitable replacement for Cat. Nos. 3121-150, 3121-200, and 3121-250.

Cat. No.	Description	Qty/Cs
3121-STPK	Stopcock, 24/29 standard taper joint with #10 hose connection	1

DISHES



3140 PYREX® Dish, Crystallizing

The rims on these dishes are reinforced and fire polished to reduce chipping. Will withstand repeated sterilization (wet or dry). Ideal for storage and crystallization.

Cat. No.	Capacity (mL)	Fluid Ounces	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3140-70	180	6	70 x 50	6	24
3140-80	180	6	80 x 40	6	24
3140-90	270	9	90 x 50	6	18
3140-100	325	11	100 x 50	6	18
3140-125	740	25	125 x 65	4	12
3140-150	1200	40	150 x 75	4	8
3140-170	1770	60	170 x 90	2	8
3140-190	2500	85	190 x 100	2	6

3160 PYREX Dish, Culture, Petri

These flat, clear dishes will withstand repeated sterilization (wet or dry). The edges are beaded to provide greater mechanical strength. The bead also provides a means to equally space the side walls of the bottom and cover, thereby reducing the capillary action of condensed moisture on the sides. They are not affected chemically or thermally by any of the methods commonly employed in laboratories where sterilization is a major factor in routine or in specialized work. The covered dish is not airtight. The tops are marked in blue enamel and the bottoms in white enamel to make sorting easier. Bottoms also have a triangular, enamel reference point for serial dilutions.

Cat. No.	Description	Size (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
3160-60	Complete	60 x 15	60 x 12	12	72
3160-100	Complete	100 x 10	100 x 14	12	72
3160-101	Complete	100 x 15	100 x 19	12	72
3160-102	Complete	100 x 20	100 x 23	12	72
3160-150	Complete	150 x 15	150 x 19	12	24
3160-152	Complete	150 x 20	150 x 23	12	24
3160-60CO	Cover only	60 x 15	60 x 15	–	12
3160-100CO	Cover only	100 x 10	100 x 10	–	12
3160-101CO	Cover only	100 x 15	100 x 15	–	12
3160-102CO	Cover only	100 x 20	100 x 20	–	12
3160-150CO	Cover only	150 x 15	150 x 15	–	12
3160-152CO	Cover only	150 x 20	150 x 20	–	12
3160-60BO	Bottom only	60 x 15	53 x 17	–	12
3160-100BO	Bottom only	100 x 10	93 x 12	–	12
3160-101BO	Bottom only	100 x 15	93 x 17	–	12
3160-102BO	Bottom only	100 x 20	93 x 22	–	12
3160-150BO	Bottom only	150 x 15	143 x 17	–	12
3160-152BO	Bottom only	150 x 20	143 x 22	–	12

3170 PYREX® Dish, Drying, Heavy Wall

This tray will withstand hot air or steam sterilization. Useful for gel work or paper chromatography. Do not place over direct heat, for oven use only.

Cat. No.	Approx. Top Width (mm)	Approx. Top Length (mm)	Approx. Inside Depth (mm)	Qty/Cs
3170-12	305	457	72	4

3175 PYREX Dish, Drying

A range of trays designed for use as drying, staining or developing trays. They can be used with paper or gel electrophoresis, or paper chromatography. Trays will withstand autoclaving. Do not place over direct heat, for oven use only.

Cat. No.	Approx. Size L x W x H (mm)	Approx. Capacity (mL)	Qty/Cs
3175-7	272 x 180 x 50	1500	4
3175-8	201 x 201 x 55	1600	4
3175-10	349 x 249 x 60	3500	4

3180 PYREX Dish, Evaporating, Flat Bottom

These dishes have rugged beaded rims and are of standard medium depth.

Cat. No.	Approx. O.D. x Height (mm)	Approx. Volume (mL)	Qty/Pk	Qty/Cs
3180-80	80 x 45	140	–	6
3180-90	90 x 50	170	–	6
3180-105	105 x 55	290	1	6

DISTILLING APPARATUS

3340 PYREX Apparatus, Distilling, Kjeldahl, Nitrogen, Ⓢ Joints

Used for determining nitrogen in organic compounds. This assembly includes a Kjeldahl flask specifically developed for this process. Both the digestion and distillation stages can be performed in this flask. The assembly shown is the distillation stage, where the amount of ammonia, and hence, nitrogen, is established. The inlet tube allows the permanganate solution to be introduced after distillation. Supplied with an outer Ⓢ 29/42 joint on the flask and an outer Ⓢ 19/38 joint on the Graham condenser. Total height is 410 mm; total width is 300 mm; maximum O.D. is approximately 97 mm.

Cat. No.	Description	Approx. Capacity (mL)	Qty/Cs
3340-500	Complete	500	1
3340-TO	Tube only	–	1
3340-FO	Flask only	–	1
2540-200	Condenser only	–	1

3350 PYREX® Apparatus, Distilling, Cyanide

Used in testing for soluble and insoluble cyanides in water. Cyanide as hydrocyanic acid (HCN) is released from cyanide complexes by means of a reflux-distillation and absorbed in a scrubber containing a sodium hydroxide solution. Tygon® tubing connects the reaction/distillation section to the absorption scrubber making set-up easier and less susceptible to glass breakage. Inlet tubes have funnel openings for easy addition of acid. Apparatus meets the requirements of E.P.A. SW-846 methods 9010 and 9012, and ASTM method D-2036. Designed for sample size of 500 mL.

Cat. No.	Description	Qty/Cs
3350-C	Cyanide distillation apparatus, complete	1
3350-CFCO	Cold finger condenser only	1
3350-CJO	Condenser jacket only	1
3350-DTO	Dispersion tube only	1
3350-ITO	Inlet tube only	1
3350-TO	Trap only	1

3360 PYREX Apparatus, Distilling, General Purpose, PYREX Stopper, Ⓢ Joint

A general purpose batch distillation assembly with the facility for addition via the PYREX stoppered neck. Ideally suited for the batch production of high purity distilled water. The flask has a flat bottom with a side delivery tube, terminating in a joint. Graham condenser tubulation O.D. is approximately 10 mm.

Cat. No.	Description	Approx. Capacity (mL)	Cond. Jacket Length (mm)	Ⓢ Stopper No.	Ⓢ Joint Size	Qty/Cs
3360-500	Complete	500	200	27	19/38	1
3360-1L	Complete	1000	200	27	19/38	1
3360-500FO	SFO	500	–	27	19/38	1
3360-1LFO	SFO	1000	–	27	19/38	1

SFO: Stopper and Flask Only.
For stopper only, see Cat. No. 7650.
For condenser, see Cat. No. 2540-200.

3575 PYREX Apparatus, Distilling, Solvent Still Head

Apparatus for maintaining oxygen free solvents. Head has sufficient storage space to allow solvent removal by syringe or drainage through 2 mm T-bore PTFE stopcock. With Ⓢ 24/40 outer joint at top, Ⓢ 24/40 inner joint at bottom and Ⓢ 14/20 inner joint on drainage arm.

Cat. No.	Approx. Capacity (mL)	Approx. Height (mm)	Qty/Cs
3575-250	250	245	1
3575-500	500	275	1

3582 PYREX Apparatus, Distilling, Oil Dilution, Receiver, Ⓢ Joints

For determining the amount of dilution in crankcase oils when gasoline has been used as fuel. Designed to allow heat-sensitive materials to be kept away from the hot base of the flask. With an outer Ⓢ 24/40 joint at the top and an inner Ⓢ 24/40 joint on the sidearm. Reference: ASTM D-322.

Cat. No.	Approx. Capacity (mL)	Approx. Height (mm)	Grad. Increment (mL)	Qty/Cs
3582	5	380	0.1	1

3602 PYREX Apparatus, Distilling, Dean Stark, Receiver, Ⓢ Joints

The 10 mL receiver is graduated from 0-1 mL in 0.1 mL increments, with a maximum scale error of 0.05 mL. The graduation increments from 1.0-10.0 mL are 0.2 mL, with a maximum scale error of 0.1 mL.

Cat. No.	Approx. Capacity (mL)	Ⓢ Inner and Outer Joint Size	Approx. Height (mm)	Qty/Pk	Qty/Cs
3602-10	10	24/40	216	1	4

Reference: ASTM E-123.

3611 PYREX® Apparatus, Distilling, Moisture Test, Receiver, Ⓢ Joints

For determining water by distillation. Receivers have a Ⓢ 24/40 ground joint on the sidearm. The 10 mL receiver is graduated, from 0 mL to 1 mL, in 0.1 mL increments, with a maximum scale error of 0.05 mL. Graduation increments from 1.0 to 10.0 mL are 0.2 mL, with maximum scale error of 0.1 mL. The 25 mL receiver is graduated, from 0 mL to 1 mL, in 0.1 mL increments, with a maximum scale error of 0.05 mL. Graduation increments from 1.0 to 25.0 mL are 0.2 mL, with a maximum scale error of 0.1 mL.

Cat. No.	Approx. Capacity (mL)	Ⓢ Inner and Outer Joint Size	Approx. Height (mm)	Qty/Cs
3611-10	10	24/40	237	1
3611-25	25	24/40	317	1

Reference: ASTM E-123, which covers apparatus used in ASTM method D-95, *Test for Water in Petroleum Products and Other Bituminous Products*.

3622 PYREX Apparatus, Distilling, Barrett, Receiver, Stopcock, Ⓢ Joints

For determining water content in petroleum or bituminous products, graduated upwards from the stopcock to 3 mL in 0.2 mL increments, and from 3 mL to 20 mL in 0.5 mL increments. Reference: Barrett method B-2. Also can be used as Dean Stark distillation apparatus specified in British Standard 756, but utilizes a common U.S. ground joint. It is also an optional setup for ASTM D-95.

Cat. No.	Approx. Capacity (mL)	Ⓢ Inner and Outer Joint Size	Approx. Height (mm)	Ⓢ Stopcock Plug No.	Qty/ Pk	Qty/ Cs
3622-20	20	24/40	228	1	2	4

EXTRACTION APPARATUS

3740 PYREX Apparatus, Extraction, Soxhlet, Ⓢ Joints

Bulb in siphon tube near the top of tube facilitates cycling of the siphoning action. The siphon tube is protected from accidental damage by the vapor tube. Ⓢ joints at the top and bottom.

Cat. No.	Approx. Capacity to Top of Siphon (mL)	Ⓢ Inner Joint Size	Ⓢ Outer Joint Size	Approx. Height (mm)	Approx. Siphon to Plate (mm)	Chamber I.D. x Height (mm)	Qty/ Pk	Qty/ Cs
3740-S	50	24/40	34/45	295	62	29 x 130	1	2
3740-M	85	24/40	45/50	303	80	38 x 130	1	2
3740-L	200	24/40	55/50	350	113	47 x 120	1	2
3740-XL	500	29/42	71/60	430	130	64 x 220	1	2

For glass extraction thimble with fritted disc only, see Cat. No. 33950.

3840 PYREX Apparatus, Extraction, Soxhlet, Ⓢ Joints, Allihn Condenser

This apparatus consists of a Soxhlet extractor, an Allihn condenser, and a flask, all which are equipped with Ⓢ joints. The tubulation O.D. on the condenser is 10 mm.

Cat. No.	Description	Approx. Capacity (mL)	I.D. Body Length (mm)	Extractor Ⓢ Joint Size Inner (Bottom)	Extractor Ⓢ Joint Size Outer (Top)	. Approx Height (mm)	Qty/ Cs
3840-S	Complete	125	27 x 192	24/40	34/45	655	1
3840-M	Complete	250	37 x 250	24/40	45/50	711	1
3840-L	Complete	500	46 x 305	24/40	55/50	803	1
3840-XL	Complete	1000	64 x 319	29/42	71/60	880	1
3840-SCO	Condenser only	–	–	–	–	–	1
3840-MCO	Condenser only	–	–	–	–	–	1
3840-LCO	Condenser only	–	–	–	–	–	1
3840-XLCO	Condenser only	–	–	–	–	–	1
3840-1LFO	Flask only	1000	–	–	–	185	1

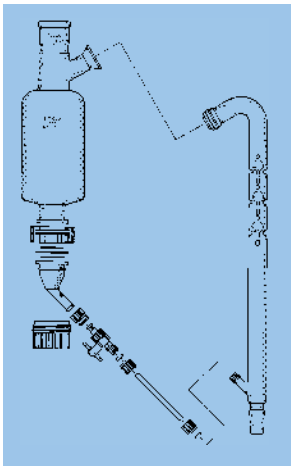
For extractor only, see Cat. No. 3740.
For flask only on sizes 125 mL through 500 mL, see Cat. No. 4100.

3880 PYREX® Apparatus, Extraction, Soxhlet, Friedrichs Condenser, Ⓢ Joints

An efficient extraction apparatus for general purpose use. Consists of a Soxhlet extractor, a special Friedrichs condenser and a flask, all equipped with Ⓢ joints. The condenser tubulation O.D. is approximately 10 mm.

Cat. No.	Description	Approx. Capacity (mL)	I.D. x Body Length (mm)	Ⓢ Inner Joint Size	Ⓢ Outer Joint Size	Approx. Height (mm)	Qty/Cs
3880-M	Complete	250	40 x 665	24/40	45/50	665	1
3880-MCO	Condenser only	–	–	–	–	–	1

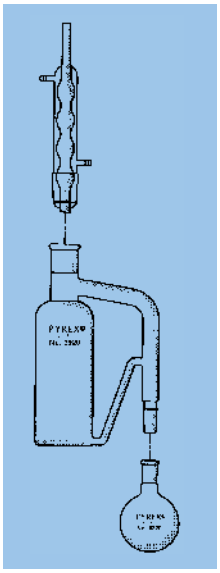
For extractor only, see Cat. No. 3740.
For flask only, see Cat. No. 4100.



3915-C PYREX Apparatus, Extraction, Accelerated One-Step, Modular

This revolutionary modular Accelerated One-Step extractor/concentrator performs extraction, concentration, and drying with the same apparatus and is designed for use with solvents of heavier specific gravity than sample being extracted. The required concentrator tube (Cat. Nos. 2157-100T or 2157-100TJ) and the Allihn condenser (Cat. No. 3840-MCO) must be purchased separately. Removable Snyder column sidearm allows easy cleaning. Meets the requirements of E.P.A. SW-846 method 3520 and EPA Waste Water method 625 allowed in CLP statement of work OLMO2.0 for semi-volatiles and pesticides. Extraction and concentration steps can be performed outside the hood. **As dictated by safe laboratory practices, we recommend that some type of ventilation system be used above or near the units in case of a drop in condenser water temperature or loss of condenser cold water supply**.

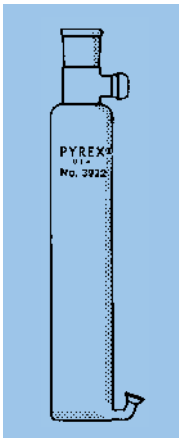
Cat. No.	Description	Qty/Pk	Qty/Cs
3915-C	Accelerated One-Step Extractor/Concentrator	–	1
2157-100TJ	Concentrator tube, jacketed, 100 mL, threaded tubulations, Ⓢ 24/40	–	1
2158-2CO	2 Ball Snyder column	1	1
3840-MCO	Condenser, Allihn, medium, Ⓢ 45/50	–	1
3915-CAO	Coupler assembly only, top/bottom	2	6
3915-CVO	O-rings, fluorocarbon coupler, $1\frac{1}{2}$" I.D., $1\frac{11}{16}$" O.D., $\frac{3}{32}$" width, 75 durometer	6	24
3915-CW	Connectors/Washers only, for stopcock assembly, melamine connectors, PTFE liners, silicon washers	2	6
3915-ECO	Extractor cup only	–	1
3915-MBO	Extractor body only, Ⓢ 45/50 top, Ⓢ 35/25 side	–	1
3915-SCA	Stopcock assembly only	–	1
3918-47	Membrane assembly, 47 mm	–	20
3918-47BP	Membrane assembly, 47 mm, bulk pack	–	200
3918-47MS	Photoceram™ membrane support only, for 47 mm membrane	–	2



3920-M PYREX® Apparatus, Extraction, Continuous Liquid/Liquid Extractor, Complete, Heavier Than Water, One-piece

The continuous liquid/liquid extractor is designed to meet E.P.A. test method requirements outlined by SW-846, RCRA, and CLP. For use with solvents of heavier specific gravity than sample liquid being extracted. The sidearm is sealed to the extractor body just below the ⅋ 45/50 ground joint. The sidearm is sealed higher on the body to reduce the chance of water spilling over while draining remaining solvent from extractor body at the end of the extraction. Extraction can be performed outside the hood. Comes complete with PYREX brand Allihn condenser and 500 mL PYREX brand round bottom boiling flask. **As dictated by safe laboratory practices, we recommend that some type of ventilation system be used above or near the units in case of a drop in condenser water temperature or loss of condenser cold water supply.**

Cat. No.	Description	Approx. Capacity (mL)	Extractor Body Approx. Height (mm)	Extractor Body Approx. Width (mm)	Total Approx. Height (mm)	Qty/Cs
3920-M	Liquid/Liquid extractor	1000	355	214	710	1
3840-MCO	Allihn condenser–	–	–	–	1	
3920-MBO	Extractor body, ⅋ 45/50 top, ⅋ 24/40 bottom	–	–	–	–	1
4320-500	Round bottom flask, 500 mL, ⅋ 24/40	–	–	–	–	12



3922 PYREX Apparatus, Modular 1L Continuous Heavier than Water Liquid/Liquid Extractor or Liquid/Liquid Extractor/Concentrator Systems

These versatile modular 1L continuous extractor systems are for use with solvents of heavier specific gravity than sample liquid being extracted. Using modular components make these components easier to clean and maintain and gives more flexibility. **These systems are designed to meet E.P.A. test method requirements outlined by SW-846, RCRA, and CLP.** Extraction can be performed outside the hood. However, as dictated by safe laboratory practices, we recommend that some type of ventilation system be used above or near the units in case of a drop in condenser water temperature or loss of condenser cold water supply.

Because this system uses modular components it can be configured as two different systems:

- The **Continuous Liquid/Liquid Extractor** uses a plain column sidearm (Cat. No. 3922-MSAO) and 500 mL round bottom flask (Cat. No. 4320-500). The crossover tube is fitted with a PTFE stopcock to impede flow to the round bottom flask when changing over from base or neutral extractions to acidic extractions or at the end of the run.
- The **Continuous Liquid/Liquid Extractor/Concentrator** uses a column sidearm (Cat. No. 3928-MSAO) and a Kuderna-Danish Flask (Cat. No. 2157-10TO) with a collection tube (Cat. No. 2158-500FO). Allows the use of the same solvent for both basic and acidic extractions. This system does not require an apparatus change to switch from extracting to concentrating. As a result, it reduces sample handling and overall technician time required.

Assembling the complete system requires purchasing 8 separate components: the extractor body, a condenser, a crossover tube, a sidearm column, and a receiver flask, as well as small and large ball joint clamps and Fluorocarbon O-rings.

Cat. No.	Description (Components required to assemble a complete system)	Qty/Pk	Qty/Cs
3922-MBO	Modular 1L Extractor Body with a ⅋ 45/50 outer Standard Taper top joint, ⅋ 35/25 middle inner Spherical Ball joint, and ⅋ 18/19 outer Spherical Ball joint 520 mm x 254 mm (height x width)	–	1
3840-MCO	PYREX Allihn Condenser with a 45/50 inner Standard Taper joint and 10 mm O.D. on the tubulations	–	1

3922 PYREX® Apparatus, Modular 1L Continuous Heavier than Water Liquid/Liquid Extractor or Liquid/Liquid Extractor/Concentrator Systems (continued)

Cat. No.	Description (Components required to assemble a complete system)	Qty/Pk	Qty/Cs
4320-500	500 mL Round Bottom Collection Flask with a $ 24/40 outer Standard Taper joint	2	12
2158-500FO	500 mL Kuderna-Danish Flask with a $ 24/40 outer Standard Taper top and a $ 19/22 inner Standard Taper bottom joint. Includes springs and Keck Clamps for both joints	–	4
2157-10TO	10 mL Kuderna-Danish Collection Tubes with a $ 19/22 outer Standard Taper joint and graduations from 0 mL to 2 mL in 0.1 mL increments and from 3 mL to 10 mL in 1.0 mL increments. **NOTE:** there are other styles and sizes of Kuderna-Danish Collection tubes that can be used the 500 mL Kuderna-Danish Flask.	1	6
7681-6	Replacement Stopcock Assembly with a 6 mm diameter bore for the Modular Crossover tube	–	1

9601 PYREX Tube, Reaction, Combination Vessel and Receiver

This tube may be used for simple semi-micro vacuum or atmospheric distillation, either as a reaction flask or a receiving tube.

Cat. No.	$ Joint Size	Approx. Length (mm)	Qty/Cs
9601-24	24/40	200	1

*This tube is also a replacement part for organic chemistry kit Cat. No. 6949.

EVAPORATOR TRAPS

4000 PYREX Trap, Evaporator

Used in rotary evaporators. Consists of a round body with upper and lower stems. The lower stem, with $ inner joint at bottom, extends upward inside the body. The closed top of this stem has two side openings. The upper stem has a $ 24/40 outer joint.

Cat. No.	Approx. Capacity (mL)	Lower $ Joint	Approx. O.D. x Height (mm)	Qty/Cs
4000-10019	100	19/22	62 x 162	1
4000-10024	100	24/40	62 x 180	1
4000-25024	250	24/40	81 x 199	1

FIBER GLASS

3950 PYREX Fiber Glass, Code No. 9989 Glass

This fiber glass is made from fine glass fibers with diameters controlled to approximately 0.008 mm. This makes the glass pliable and easy to use. Manufactured from Code No. 9989 glass, this fiber glass contains minimal heavy metals and is suitable for use as a filtering medium. Supplied in the form of roving approximately 2 inches in O.D. x 22 feet long. Packaged in 0.23 kg. (0.5 lb.) bags. Not sold in quantities of less than 0.46 kg. (1 lb.).

Cat. No.	Pk/Cs	Qty/Cs
3950	1 lb./2 bags	12 lb./24 bags

FILLING BELLS

3960 PYREX® Bell, Filling

For use with culture tubes and bottles. The smaller size will fit tubes up to 20 mm O.D. (without lip). The larger size can be used on bottles with maximum rim diameter of 44 mm.

Cat. No.	Approx. Height (mm)	Tubulation O.D. (mm)	Qty/Cs
3960-S	70	7	1
3960-L	85	11	1

3965 PYREX Bell, Filling, Aseptic

For aseptic filling of vessels. Rubber tubing is attached to the top of the tubulation while the receiving vessel is placed inside the bell.

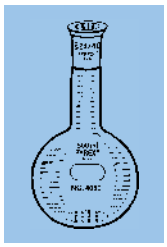
Cat. No.	For Use With	Approx. Body I.D. (mm)	Tubulation O.D. (mm)	Body O.D. x Total Height (mm)	Qty/Cs
3965-20	Tubes	20	9.0	25 x 80	2
3965-40	Tubes	40	9.0	45 x 105	2
3965-50	Bottles	50	9.0	54 x 105	2
3965-70	Bottles	70	9.0	75 x 130	2
3965-100	Bottles	100	10.0	110 x 135	2

FLASKS

4060 PYREX Flask, Florence, Boiling, Flat Bottom, Long Neck, Tooled Mouth

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4060-50	50	1	50 x 94	–	1
4060-125	125	2	68 x 120	6	24
4060-250	250	5	82 x 134	6	24
4060-500	500	6	103 x 174	6	24
4060-1L	1000	8	132 x 213	–	6
4060-2L	2000	8	168 x 293	–	1
4060-6L	6000	11	237 x 367	–	1
4060-12L	12000*	11	297 x 371	–	1

*The 12000 mL size has a short neck.



4080 PYREX Flask, Florence, Boiling, Flat Bottom, Long Neck, Ⓢ Joint

With full length outer Ⓢ joints.

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4080-250	250	24/40	82 x 154	6	12
4080-500	500	24/40	103 x 195	6	12

4100 PYREX Flask, Boiling, Flat Bottom, Short Neck, Ⓢ Joint

With full length outer joints, but with shorter necks.

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4100-50	50	24/40	50 x 98	–	1
4100-125	125	24/40	69 x 120	–	12
4100-250	250	24/40	82 x 135	6	12
4100-500	500	24/40	103 x 155	6	12
4100-1L	1000	24/40	132 x 185	1	12

4260 PYREX® Flask, Boiling, Round Bottom, Short Ring Neck

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4260-250	250	5	83 x 120	–	1
4260-500	500	6	102 x 160	–	1
4260-1L	1000	8	130 x 185	6	12
4260-2L	2000	10	162 x 232	1	18
4260-3L	3000	10	184 x 260	–	1
4260-5L	5000	11	221 x 310	–	6
4260-12L	12000	11	295 x 378	–	1
4260-22L	22000	14	349 x 426	–	1

4280 PYREX Flask, Boiling, Round Bottom, Long Neck, Tooled Mouth

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4280-100	100	2	65 x 120	12	84
4280-250	250	5	83 x 149	–	1
4280-500	500	6	102 x 203	6	12
4280-1L	1000	8	130 x 241	6	30
4280-2L	2000	8	166 x 308	1	18
4280-5L	5000	11	221 x 380	1	6

4315 PYREX Flask, Pear-shaped

These flasks are equipped with ⅋ 14/20 outer joint.

Cat. No.	Approx. Capacity (mL)	⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4315-10	10	14/20	31 x 58	2	12
4315-50	50	14/20	46 x 87	2	12
4315-100	100	14/20	60 x 106	–	1

4318 PYREX Flask, Pear-shaped

These flasks are equipped with a ⅋ 24/40 joint.

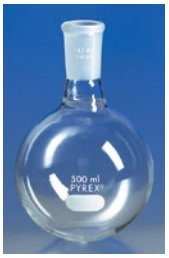
Cat. No.	Approx. Capacity (mL)	⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4318-50	50	24/40	50 x 100	1
4318-250	250	24/40	83 x 152	1

4320 PYREX Flask, Boiling, Round Bottom, Short Neck, ⅋ Joint

With full length joints, but with short necks.

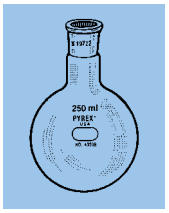
Cat. No.	Approx. Capacity (mL)	⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4320-50	50	19/38	49 x 98	2	12
4320-100	100	24/40	65 x 120	2	12
4320-250	250	24/40	83 x 140	2	12
4320-300	300	24/40	87 x 145	2	12
4320-500	500	24/40	102 x 160	2	12
4320-1L	1000	24/40	127 x 189	1	12
4320-2L	2000	24/40	162 x 220	1	6
4320-5L	5000	45/50	221 x 300	1	4
4320-12L	12000	55/50	295 x 385	–	1

The 100, 250, and 500 mL flasks are replacement parts for organic chemistry kits (Cat. Nos. 6949 through 6949K).



4320A PYREX® Flask, Boiling, Round Bottom, Short Neck, Ⓢ Joint

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4320A-50	50	24/40	49 x 98	12



4320B PYREX Flask, Boiling, Round Bottom, Short Neck, Ⓢ Joint

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4320B-25	25	19/22	42 x 72	–	1
4320B-50	50	19/22	49 x 81	–	1
4320B-100	100	19/22	65 x 95	2	12
4320B-250	250	19/22	83 x 120	–	1
4320B-500	500	19/22	102 x 139	–	1

These flasks are replacement parts for organic chemistry kits (Cat. Nos. 6949 through 6949K).

4320C PYREX Flask, Boiling, Round Bottom, Short Neck, Heavy Wall, Ⓢ Joint

This heavy duty boiling flask provides increased mechanical strength. The flask features walls which are 25% to 30% thicker than the standard version.

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4320C-50	50	24/40	49 x 61	1
4320C-100	100	24/40	65 x 120	1
4320C-250	250	24/40	83 x 140	1
4320C-500	500	24/40	102 x 160	1
4320C-1L	1000	24/40	127 x 189	1
4320C-2L	2000	24/40	162 x 215	1
4320C-3L	3000	24/40	189 x 255	1
4320C-5L	5000	45/50	221 x 300	1
4320C-12L	12000	55/50	295 x 385	1

4321 PYREX Flask, Boiling, Round Bottom, Short Neck, Ⓢ Joint

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4321-100	100	29/42	63 x 120	1
4321-250	250	29/42	83 x 140	1
4321-500	500	29/42	102 x 157	1
4321-1L	1000	29/42	130 x 185	1

4321A PYREX Flask, Boiling, Round Bottom, Short Neck, Ⓢ Joint

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4321A-25	25	14/20	42 x 70	–	1
4321A-50	50	14/20	49 x 84	–	1
4321A-100	100	14/20	65 x 95	1	12
4321A-250	250	14/20	83 x 114	–	1
4321A-500	500	14/20	102 x 137	–	1

4420 PYREX Flask, Fernbach, Culture

This wide mouth flask is designed for culturing organisms requiring a large surface area to volume ratio. It can also be used in serum production.

Cat. No.	Approx. Capacity (mL)	Approx. Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
4420-2XL	2800	13-14	205 x 230	6

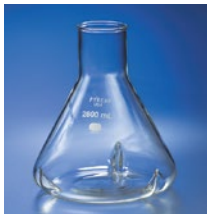
Reference: *Industrial and Engineering Chemistry*, Vol. 21, No. 12, P. 1198. Note: Do not use this flask on a heat source smaller than the base of the flask. Uneven heating of the flask could cause breakage.

4422 PYREX® Flask, Culture, Low Form

This narrow mouth flask is designed for culturing organisms requiring a large surface area to volume ratio. The neck O.D. is 38 mm.

Cat. No.	Approx. Capacity (mL)	Approx. Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
4422-2XL	2500	6.5	254 x 197	1

Caution: Do not use this flask on a heat source smaller than the base of the flask. Uneven heating of the flask could cause breakage.

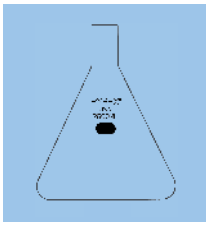


4423 PYREX Flask, Fernbach Culture Flask, Baffled, Beaded Neck

This wide-mouth flask is designed for culturing organisms requiring a large surface area to volume ratio. Triple baffled on the bottom outside edges to achieve maximal oxygen transfer to culture medium. Beaded neck is 63 mm I.D. and accepts cotton plugs or rubber stoppers.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Cs
4423-2XL	2800	13	200 x 230	3

Caution: Do not place on a direct heat source.

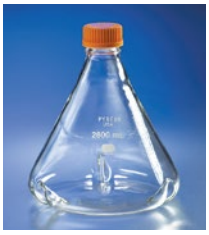


4424 PYREX Flask, Fernbach Culture Flask, Baffled, Plain Neck

This triple baffled flask has a Delong style 38 mm neck for plastic or stainless steel closures. Triple baffles are located at the center of the flask bottom to achieve maximal oxygen transfer to culture medium. Closures are sold separately.

Cat. No.	Approx. Capacity (mL)	Approx. Neck O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Cs
4424-2XL	2800	38	200 x 260	3

Caution: Do not place on a direct heat source.



4425 PYREX Flask, Fernbach Culture Flask, Baffled, with Screw Cap

This wide mouth flask is designed for culturing organisms requiring a large surface area to volume ratio. Triple baffled on the bottom outside edges to achieve maximal oxygen transfer to culture medium. Supplied with GL 45 orange polypropylene cap.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Cs
4425-2XL	2800	200 x 230	3

For replacement caps, see Cat. No. 1395-45LTC.
Caution: Do not place on a direct heat source.

4442 PYREX Flask, Culture, Long Neck

The long neck culture flask is basically an Erlenmeyer flask to which a long straight, rimless neck of heavy tubing has been added. The longer necks reduce the amount of splashed solution reaching the closure. It is ideal for shaker cultures.

Cat. No.	Description	Approx. Neck O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4442-50	Flask, 50 mL	18	50 x 105	6	24
4442-125	Flask, 125 mL	25	66 x 122	6	12
4442-250	Flask, 250 mL	38	81 x 138	6	12
4442-500	Flask, 500 mL	38	101 x 181	–	1
4442-1L	Flask, 1000 mL	38	129 x 216	–	1
4442-2L	Flask, 2000 mL	38	160 x 285	–	1
26794-25*	Closure, orange	25	–	50	100
26795-25*	Closure, natural	25	–	50	100
26796-38**	Closure, orange	38	–	50	100
26797-38**	Closure, natural	38	–	50	100

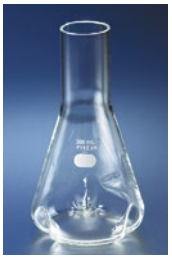
*Closure fits 125 mL.
**Closure fits 250, 500, 1L, 2L.

4444 PYREX® Flask, Baffled

Delong style, with three baffle indents designed to provide greater agitation of solutions to improve oxygen or gas transfer when used with rotary or reciprocating shakers. Long neck reduces splashing and is designed for two-position polypropylene closures.

Cat. No.	Description	Approx. Neck O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4444-125	Flask, 125 mL	25	70 x 140	–	6
4444-250	Flask, 250 mL	38	85 x 155	–	6
4444-500	Flask, 500 mL	38	100 x 200	–	6
4444-1L	Flask, 1000 mL	38	130 x 240	–	6
4444-2L	Flask, 2000 mL	38	160 x 282	–	1
4444-4L	Flask, 4000 mL	38	210 x 350	–	1
26794-25*	Closure, orange	25	–	50	100
26795-25*	Closure, natural	25	–	50	100
26796-38**	Closure, orange	38	–	50	100
26797-38**	Closure, natural	38	–	50	100

*Closure fits 125 mL.
**Closure fits 250, 500, 1L, 2L.



4446 PYREX Flask, Shaker, Extra-Deep Baffles

Delong style neck, with three extra-deep baffles, to enhance gas transfer when used with rotary or reciprocating shakers. Long neck reduces splashing and is designed for two-position polypropylene closures. Closures are sold separately.

Cat. No.	Description	Approx. Neck O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Cs
4446-50	Flask, 50 mL	51 x 106	18	12
4446-125	Flask, 125 mL	67 x 140	25	12
4446-250	Flask, 250 mL	82 x 147	38	12
4446-300	Flask, 300 mL	89 x 155	38	12
4446-500	Flask, 500 mL	101 x 200	38	12
4446-1L	Flask, 1000 mL	129 x 240	38	6
4446-2L	Flask, 2000 mL	160 x 282	38	3
4446-3L	Flask, 3000 mL	185 x 327	38	2
4446-4L	Flask, 4000 mL	206 x 350	38	2

4450 PYREX Flask, Shaker, Baffled

Heavy tooled rim for maximum durability. The same baffle design as found on our Delong flasks promotes optimal and consistent solution agitation when used with flask shakers.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height. (mm)	Rubber Stopper No.	Qty/Cs
4450-125	125	70 x 115	5	6
4450-250	250	85 x 155	6	6
4450-500	500	100 x 180	7	6
4450-1L	1000	130 x 220	8.5	1

4460 PYREX Flask, Trypsinizing, Beaded Neck, Baffled

Flasks are used for converting homogenous tissue samples into cell suspensions by digestion of connective proteins. Heavy beaded neck accepts cotton plugs. Four extra-deep baffles enhance vigorous agitation.

Cat. No.	Description	Approx O.D. x Height (mm)	Height of Baffles (mm)	Qty/Cs
4460-2L	Flask, 1500 mL	160 x 290	125	2

4620 PYREX® Flask, Distilling

The sidearm on all sizes, except 125 mL, is approximately 77 mm below the top of the neck at an angle of 75°. Adaptable for use with thermometers calibrated for 76 mm immersion. The sidearm of the 125 mL flask is located approximately 137 mm from the bottom of the flask to meet the requirements of ASTM E-1405 and can be used in ASTM tests D-86 and D-233. Suitable for microchemical applications.

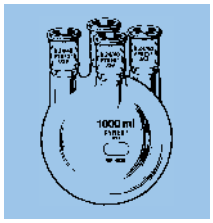
Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Sidearm O.D. x Length (mm)	Qty/Pk	Qty/Cs
4620-25	25	0	42 x 157	7 x 100	–	1
4620-50	50	0	49 x 163	7 x 100	–	1
4620-125*	125	2	69 x 214	7 x 100	6	24
4620-250	250	3	86 x 250	9 x 130	4	24
4620-500	500	4	102 x 268	9 x 130	–	1
4620-1L	1000	5	130 x 321	11 x 180	–	1

*Heavy duty.

4720 PYREX Flask, Church, Distilling

For the distillation of bituminous materials suitable for road treatment. Also used in the *Standard Method of Test of the Distillation of Creosote Oil*, American Wood Preservers Association, method 11e, Barrett method C 9, American Association of State Highway Officials, methods T 52 and T 62.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Approx. O.D. x Length (mm)	Qty/Cs
4720-500	500	5	102 x 135	13 x 220	1



4935 PYREX Flask, Distilling, Four Necks, Vertical Type, Outer ⅋ Joints

The three side necks are placed 90° apart.

Cat. No.	Approx. Capacity (mL)	Center Neck ⅋ Joint Size	Side Neck ⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4935-1L	1000	34/45	24/40	130 x 190	1
4935-2L	2000	45/50	24/40	162 x 235	1
4935-5L	5000	45/50	24/40	221 x 300	1

4950 PYREX Flask, Distilling, Three Necks, Vertical Type, ⅋ 24/40 Joints

The three necks are the same height. Each neck has a ⅋ 24/40 joint.

Cat. No.	Approx. Capacity (mL)	⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4950-500	500	24/40	102 x 160	1	4
4950-1L	1000	24/40	130 x 185	1	4
4950-2L	2000	24/40	162 x 215	1	4
4950-3L	3000	24/40	184 x 240	1	3
4950-5L	5000	24/40	221 x 275	1	3

4960 PYREX Flask, Distilling, Three Necks, Vertical Type, ⅋ Joints

With full length ⅋ joints.

Cat. No.	Approx. Capacity (mL)	Center Neck ⅋ Joint Size	Side Neck ⅋ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4960-250	250	24/40	24/40	83 x 140	1	4
4960-500	500	34/45	24/40	102 x 165	1	4
4960-1L	1000	34/45	24/40	130 x 190	1	4
4960-2L	2000	45/50	24/40	162 x 228	1	4
4960-5L	5000	45/50	24/40	221 x 300	1	3
4960-12L	12000	55/50	29/42	295 x 385	–	1

4965 PYREX® Flask, Distilling, Three Necks, Angle Type, Ⓢ Joints

Cat. No.	Approx. Capacity (mL)	Center Neck Ⓢ Joint Size	Side Neck Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4965-100	100	24/40	19/38	65 x 120	1	4
4965-250*	250	24/40	24/40	83 x 140	1	4
4965-500	500	34/45	24/40	102 x 160	1	4
4965-1L	1000	34/45	24/40	130 x 190	1	4

*The 250 mL flask is also a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).

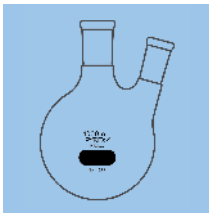
4965A PYREX Flask, Distilling, Three Necks, Angle Type, Ⓢ Joints

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4965A-500	500	24/40	87 x 156	1
4965A-1L	1000	24/40	130 x 185	1

4965B PYREX Flask, Distilling, Three Necks, Angle Type, Ⓢ Joints

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Cs
4965B-500*	500	19/22	102 x 138	1
4965B-250	250	19/22	83 x 128	1

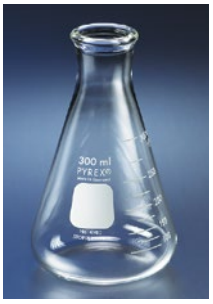
*This 500 mL flask is also a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).



4968 PYREX Flask, Replacement Part, Two Neck Boiling, Ⓢ Joints

This specially designed 1L boiling flask is a replacement part for the PYREX Cyanide Distilling Apparatus (Cat. No. 3350-C) .

Cat. No.	Approx. Capacity (mL)	Center Neck Ⓢ Joint Size	Side Neck Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
4968-1L	1000	24/40	19/38	188 x 130	1	1



4980 PYREX Flask, Erlenmeyer, Narrow Mouth, Heavy Duty Rim, Graduated

Approximate graduations are in durable white enamel. An extra large marking space is also provided. Heavy, durable top tooling.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Grad. Range (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/ Pk	Qty/ Cs
4980-10	10	0	5-10	5	31 x 50	–	12
4980-25	25	0	10-25	5	41 x 65	12	48
4980-50	50	1	20-50	10	51 x 78	12	48
4980-125	125	5	50-125	25	67 x 114	12	48
4980-250	250	6	50-200	25	82 x 132	12	48
4980-300	300	6	100-300	25	89 x 144	12	48
4980-500	500	7	100-500	50	101 x 176	6	36
4980-1L	1000	9	250-1000	50	129 x 216	6	24
4980-1XL	1500	9	400-1500	100	149 x 244	–	1
4980-2L	2000	10	600-1800	200	160 x 268	1	8
4980-4L	4000	10	1000-4000	500	206 x 360	1	4
4980-6L	6000	10	1500-6000	500	241 x 410	1	4
4980-PACK	Assortment pack*	–	–	–	1	1	–

*A convenience pack containing one each of the most popular sizes of Cat. No. 4980 series flask. Designed for the low volume user, a case contains one each of five sizes: 50 mL, 125 mL, 250 mL, 500 mL, and 1L. Packaged in a partitioned carton for safe transit and storage.

4985 PYREX® Flask, Erlenmeyer, Screw Cap, Graduated

These Erlenmeyer flasks with phenolic screw caps are ideal for culturing, mixing and storing media. Impact resistant caps are equipped with cemented-in, inert white rubber liners which are resistant to steam sterilization. Flasks are graduated and include marking space.

Cat. No.	Approx. Capacity (mL)	G.P.I. Thread Finish	Grad. Range (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/ Pk	Qty/ Cs
4985-50	50	24-410	20-50	10	50 x 78	12	24
4985-125	125	24-410	50-125	25	68 x 105	12	24
4985-250	250	38-430M	50-200	25	81 x 135	6	24
4985-500	500	38-430M	100-500	50	102 x 186	6	24
4985-1L	1000	38-430M	250-1000	50	128 x 218	6	12

For cap only, see Cat. No. 9999.

4995 PYREX Flask, Erlenmeyer, GL 45, Wide-mouth, Screw Cap, Graduated

Features a convenient single size plug-seal cap. Wide, 29 mm neck opening makes it easy to use larger volume serological pipets. Ideal product for all media prep and storage needs. Can be used as vented culture flask when optional membrane cap is used.

Cat. No.	Description	Approx. O.D. x Height (mm)	Qty/Cs
4995-250	Flask, 250 mL	81 x 140	6
4995-500	Flask, 500 mL	102 x 185	6
4995-1L	Flask, 1000 mL	128 x 225	6
4995-2L	Flask, 2000 mL	160 x 268	1
4995-4L	Flask, 4000 mL	206 x 335	1
4995-6L	Flask, 6000 mL	235 x 395	1

For replacement caps, O-rings or Vented Membrane Cap, see Cat. No. 1395.

5000 PYREX Flask, Erlenmeyer, Narrow Mouth, Ⓢ Joint, Graduated

A range of Erlenmeyer flasks with joints. For convenience, these flasks are graduated to show approximate capacity.

Cat. No.	Approx. Capacity (mL)	Ⓢ Joint Size	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5000-50	50	19/38	48x98	–	1
5000-125	125	24/40	67 x 120	6	12
5000-250	250	24/40	81 x 161	6	12
5000-500*	500	24/40	101 x 198	6	12

*Reference ASTM E-123.

5020 PYREX Flask, Erlenmeyer, Narrow Mouth, PYREX Ⓢ Stopper, Graduated

For convenience, these flasks are graduated to show approximate capacity. The 25 mL, 50 mL, and 125 mL flasks are satisfactory for use as a weighing bottle.

Cat. No.	Description	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Stopper No.	Qty/Pk	Qty/Cs
5020-25	Complete	25	40 x 92	16	6	12
5020-50	Complete	50	48 x 101	19	12	12
5020-125	Complete	125	68 x 136	22	6	12
5020-250	Complete	250	81 x 171	27	6	12
5020-500	Complete	500	101 x 215	32	1	8
5020-1L	Complete	1000	129 x 241	32	1	6

For stopper only, see Cat. No. 7650.

55020 PYREX® Flask, Low Actinic, Erlenmeyer, Narrow Mouth, PYREX ⅀ Stopper

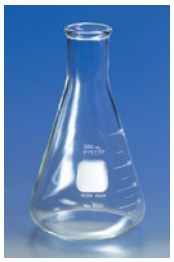
Low actinic stained glass provides protection for materials sensitive to light. The protective color is an integral part of the flask, which retains the mechanical strength, chemical stability and thermal resistance of PYREX brand labware.

Cat. No.	Description	Approx. Capacity (mL)	⅀ Stopper No.	Qty/Cs
55020-250	Complete	250	27	1

5100 PYREX Flask, Erlenmeyer, Heavy Duty Rim, Wide Mouth, Graduated

A wide mouth flask especially recommended for use as a titration flask. For convenience, these flasks are graduated to show the approximate capacity and have an extra large marking spot.

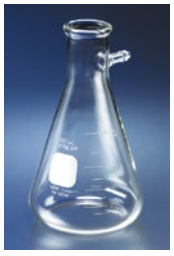
Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Grad. Range (mL)	Grad. Increment (mL)	Qty/Pk	Qty/Cs
5100-125	125	6	50-125	25	12	48
5100-250	250	8	50-200	25	12	48
5100-500	500	10	100-500	50	6	36
5100-1L	1000	11	250-1000	50	6	24
5100-2L	2000	13	400-1800	100	1	8



5320 PYREX Flask, Filtering, Heavy Wall, Graduated

These flasks, without tubulation, are blown in special molds, in shapes designed to give maximum mechanical strength. These flasks are graduated to show their approximate capacity. Marked “Filter Flask” to avoid confusion with similar sizes of Erlenmeyer flasks. All flasks have permanent white enamel graduations and marking spots.

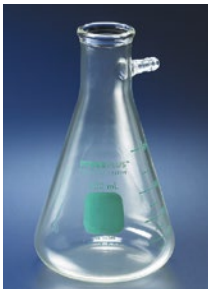
Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Grad. Increment (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5320-250	250	75-250	25	6	84 x 146	6	18
5320-500	500	150-500	50	7	106 x 184	6	18
5320-1L	1000	300-1000	50	8	127 x 238	6	12
5320-2L	2000	600-1800	200	9	168 x 292	1	12
5320-4L	4000	1500-3500	500	12	198 x 372	1	6



5340 PYREX Flask, Filtering, Heavy Wall, Tubulation, Graduated

These flasks, with tubulation, are blown in special molds, in shapes designed to give maximum mechanical strength. For convenience, the flasks are graduated to show approximate capacity. The neck finish affords an excellent fit for rubber stoppers. Tubulation O.D. on sizes up to 1000 mL is approximately 10 mm. Tubulation O.D. for 2000 mL, and 4000 mL is approximately 12.5 mm.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Grad. Increment (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5340-250	250	75-250	25	6	84 x 146	6	18
5340-500	500	150-500	50	7	106 x 184	6	18
5340-1L	1000	300-1000	50	8	127 x 238	6	12
5340-2L	2000	600-1800	200	9	168 x 292	1	12
5340-4L	4000	1500-3500	500	12	198 x 356	1	6

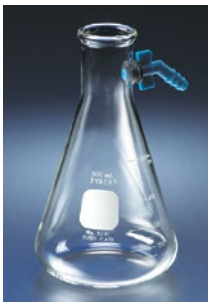


65340 PYREXPLUS® Flask, Filtering, Heavy Wall, Protective Coating, Tubulation, Graduated

Flask features a protective PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. For convenience, the flasks are graduated to show approximate capacity. Tubulation O.D. is approximately 10 mm on sizes up to 1000 mL. Tubulation O.D. is approximately 12.5 mm on 2000 and 4000 mL sizes. The tubulation is not coated to allow easy connection of standard size tubing.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Grad. Increment (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
65340-250	250	75-250	25	6	84 x 146	–	6
65340-500	500	150-500	50	7	106 x 184	–	6
65340-1L	1000	300-1000	50	8	127 x 238	–	6
65340-2L	2000	600-1800	200	9	168 x 292	1	4
65340-4L	4000	1500-3500	500	12	198 x 356	1	2

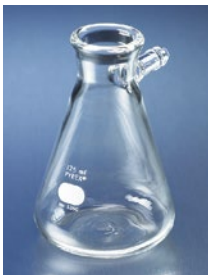
Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat.



5341 PYREX® Flask, Filtering, Heavy Wall, Replaceable Tubulation

These heavy wall flasks have seated a bent, removable plastic tubulation in a grommet. Should the flask be upset, the grommet acts as a shock absorber. For convenience, the flasks are graduated to show approximate capacity. The neck finish affords an excellent fit for rubber stoppers of appropriate size. Tubulation O.D. is approximately 12.5 mm.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Rubber Stopper No.	Qty/Pk	Qty/Cs
5341-250	250	75-250	25	84 x 146	6	1	1
5341-500	500	150-500	50	106 x 184	7	1	1
5341-1L	1000	300-1000	50	127 x 238	8	6	12
5341-2L	2000	600-1800	200	168 x 292	9	1	6
5341-4L	4000	1500-3500	500	198 x 356	12	1	4
5341-PTO	Replaceable sidearm tubulation for 5341 PYREX heavy wall filtering flasks					–	6



5360 PYREX Flask, Filtering, Micro, Tubulation

These small filtering flasks are recommended for microchemical use. All flasks have permanent white enamel marking spots.

Cat. No.	Approx. Capacity (mL)	Tubulation O.D. (mm)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5360-25	25	10	3	40 x 75	6	18
5360-50	50	10	4	51 x 85	6	18
5360-125	125	10	5	70 x 110	6	18

5400 PYREX Flask, Iodine Determination, Pyrex $ Stopper

These iodine determination flasks are blown in specially designed molds, thereby insuring uniformity and proper contour. The stopper projects above the liquid seal trough to facilitate removal.

Cat. No.	Approx. Capacity (mL)	$ Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5400-125	125	22	66 x 146	6	12
5400-250	250	22	81 x 184	1	8
5400-500	500	22	101 x 220	–	6

Reference: ASTM D-29 and D-555.
For stopper only, see Cat. No. 7640N.

5420 PYREX® Flask, Kjeldahl, Round Bottom, Long Neck

Of all the common laboratory test methods, the Kjeldahl method for determining nitrogen subjects the boiling flask to the most severe thermal and chemical abuse. These Kjeldahl flasks, specially styled, have tooled finished necks for extra strength and uniform stopper fit. Wall thickness is controlled to offer the optimum balance between thermal shock and chemical resistance. Can be used in ASTM E-258 procedure. Care must be taken to ensure the bottoms of the flasks do not come in contact with the heating elements. Most Kjeldahl equipment manufacturers have ring supports for this purpose.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5420-100	100	2	55 x 210	6	24
5420-300	300	5	79 x 298	6	24
5420-500	500	6	101 x 324	6	24
5420-800	800	7	117 x 365	6	18

Reference: ASTM E-1377.

5440 PYREX Flask, Kjeldahl, Micro, Round Bottom, Long Neck

Flask, without tooled neck, is suitable for multiple micro digestions. Care must be taken to ensure the bottoms of the flasks do not come in contact with the heating elements. Most Kjeldahl equipment manufacturers have ring supports for this purpose.

Cat. No.	Approx. Capacity (mL)	Rubber Stopper No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5440-30	30	0	40 x 180	6	18

Reference: ASTM E-147.

5580 PYREX Flask, Volumetric, Class A, Snap Cap

The strength of these flasks has been increased appreciably through machine-blown bodies to which are sealed heavy-beaded, heavy-tubing necks, tooled for snap cap fit. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. The 1 mL and 2 mL sizes are test tube shaped. The 10 mL through 2000 mL sizes are supplied with snap caps.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Snap-Cap No.	Qty/Pk	Qty/Cs
5580-1*	1	0.01	10 x 55	–	6	12
5580-2*	2	0.015	9 x 85	–	6	12
5580-10	10	0.02	28 x 78	10	–	12
5580-25	25	0.03	40 x 100	25	6	12
5580-50	50	0.05	51 x 130	50	6	12
5580-100	100	0.08	60 x 160	100	6	12
5580-200	200	0.10	74 x 214	200	6	12
5580-250	250	0.12	78 x 225	250	6	12
5580-500	500	0.20	100 x 259	500	6	12
5580-1L	1000	0.30	125 x 310	1000	1	6
5580-2L	2000	0.50	158 x 357	2000	1	4

*No snap caps for 1 mL and 2 mL sizes.
For snap caps only, see Cat. No. 7666.

5600 PYREX® Flask, Lifetime Red™, Volumetric, Class A, Snap Cap, Graduated, To Contain

The capacity mark is a fine line etched through a narrow red band into clear glass, making a filler unnecessary and giving high legibility, accuracy, and permanence. Snap caps supplied with all sizes.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Snap-Cap No.	Qty/Pk	Qty/Cs
5600-25	25	0.03	40 x 100	25	6	12
5600-50	50	0.05	51 x 130	50	6	12
5600-100	100	0.08	60 x 160	100	6	12
5600-200	200	0.10	74 x 214	200	6	12
5600-250	250	0.10	74 x 225	250	6	12
5600-500	500	0.20	100 x 259	500	6	12
5600-1L	1000	0.30	125 x 310	1000	1	6
5600-2L	2000	0.50	158 x 357	2000	1	4

For snap cap, see Cat. No. 7666.

5630 PYREX Flask, Volumetric, Class A, Micro, Hexagonal Base, PYREX Ŝ Stopper

Volumetric flasks for microchemical work, sizes 1 mL through 5 mL, are designed in accordance with the recommendations of the Committee of Microchemical Apparatus, Analytical Division of the A.C.S. To improve the stability of this small flask, a hexagonal base, similar to those on all cylinders, has been added. The graduation line is sharp and permanent. The white markings are easy to read.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D x Height (mm)	Ŝ Stopper No.	Qty/Pk	Qty/Cs
5630-1	1	0.01	8 x 68	8	–	12
5630-2	2	0.015	12 x 71	8	–	12
5630-5	5	0.02	17 x 80	8	–	12
5630-10	10	0.02	20 x 105	9	–	12
5630-25	25	0.03	29 x 132	9	6	12

For stoppers only, see Cat. No. 7650.
Reference: ASTM E-237.

5631 PYREX Flask, Volumetric, Class A, Corning Certified and Serialized, Micro, PYREX Ŝ Stopper

Calibrated to Class A Tolerance and individually serialized and supplied with a Certificate of Identification and Capacity. To improve the stability of this flask, a hexagonal base has been added. The graduation line is sharp and permanent and the white markings are easy to read. Each flask features a PYREX Ŝ stopper.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D x Height (mm)	Ŝ Stopper No.	Qty/Cs
5631-1	1	0.01	8 x 68	8	6
5631-2	2	.015	12 x 71	8	6
5631-5	5	0.02	17 x 80	8	6
5631-10	10	0.02	20 x 105	9	6
5631-25	25	0.03	29 x 132	9	6

For stoppers only, see Cat. No. 7650.

5635 PYREX Flask, Volumetric, Class A, Wide Mouth, Heavy Duty, PYREX Ŝ Stopper

Designed for microchemical work. The heavy duty, wide mouth facilitates filling and mixing. Easy-to read graduation line is sharp and permanent. Supplied with interchangeable standard taper ground glass stoppers.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D x Height (mm)	Ŝ Stopper No.	Qty/Cs
5635-10	10	0.02	31 x 83	13	6
5635-25	25	0.03	40 x 100	13	6
5635-50	50	0.05	51 x 130	13	6
5635-100	100	0.08	66 x 160	16	6
5635-200	200	0.10	80 x 180	19	6
5635-250	250	0.12	87 x 180	19	6

For replacement stopper only, see Cat. No. 7650.

55635 PYREX® Flask, Low Actinic, Volumetric, Class A, Wide Mouth, Heavy Duty, PYREX ⅋ Stopper

Low actinic stained glass provides protection for materials sensitive to light. The protective color is an integral part of the flask, which retains the mechanical strength, chemical stability, and thermal resistance of the PYREX brand labware. The heavy duty, wide mouth accommodates pipet filling and mixing. Easy to read graduation line is sharp and permanent. Designed for microchemical work and calibrated to Class A Tolerance. Each flask features a PYREX ⅋ stopper.

Cat. No.	Capacity (mL)	Approx. O.D. x Height (mm)	⅋ Stopper No.	Qty/Cs
55635-25	25	40 x 100	13	6
55635-50	50	51 x 130	13	6
55635-100	100	65 x 160	16	6
55635-250	250	87 x 180	19	6

For stoppers only, see Cat. No. 7650.

5640 PYREX Flask, Volumetric, Class A, PYREX ⅋ Stopper

The strength of these flasks has been increased appreciably through machine-blown bodies to which are sealed heavy-tubing necks tooled for ⅋ glass stoppers. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. The 1 mL and 2 mL sizes are test tube shaped. Sizes 3L through 6L have pennyhead ⅋ stoppers.

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅋ Stopper No.	Qty/Pk	Qty/Cs
5640-1	Complete	1	0.01	9 x 79	8	–	12
5640-2	Complete	2	0.015	9 x 114	8	–	12
5640-5	Complete	5	0.02	26 x 91	8	–	12
5640-10	Complete	10	0.02	28 x 99	9	–	12
5640-25	Complete	25	0.03	40 x 121	9	6	12
5640-50	Complete	50	0.05	50 x 151	9	6	12
5640-100	Complete	100	0.08	60 x 181	13	6	12
5640-200	Complete	200	0.10	74 x 214	13	6	12
5640-250	Complete	250	0.12	78 x 252	16	6	12
5640-500	Complete	500	0.20	99 x 287	19	6	12
5640-1L	Complete	1000	0.30	127 x 346	22	1	6
5640-2L	Complete	2000	0.50	180 x 440	27	1	4
5640-3L	Complete	3000	1.0	205 x 440	32	–	1
5640-4L	Complete	4000	1.0	205 x 480	38	–	1
5640-5L	Complete	5000	1.5	225 x 520	38	–	1
5640-6L	Complete	6000	2.0	230 x 550	38	–	1
5640-10FO	Flask only	10	–	–	–	–	12
5640-25FO	Flask only	25	–	–	–	–	1
5640-50FO	Flask only	50	–	–	–	–	1
5640-100FO	Flask only	100	–	–	–	–	12
5640-200FO	Flask only	200	–	–	–	–	1
5640-250FO	Flask only	250	–	–	–	–	1
5640-500FO	Flask only	500	–	–	–	–	1
5640-1LFO	Flask only	1000	–	–	–	–	1

For stopper only, see Cat. Nos. 7650 and 7661.

55640 PYREX® Flask, Low Actinic, Volumetric, Class A, PYREX ⅀ Stopper

Low actinic stained glass provides protection for materials sensitive to light. The protective color is an integral part of the flask, which retains the mechanical strength, chemical stability, and thermal resistance of PYREX brand labware.

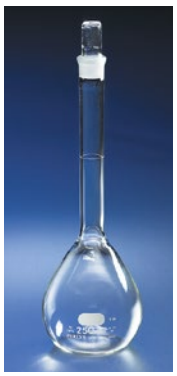
Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
55640-10	10	0.02	28 x 99	9	–	12
55640-25	25	0.03	40 x 121	9	6	12
55640-50	50	0.05	51 x 130	9	6	12
55640-100	100	0.08	60 x 181	13	6	12
55640-200	200	0.1	74 x 214	13	6	12
55640-200FO	200	0.1	74 x 214	–	6	12
55640-250	250	0.12	78 x 225	16	6	12
55640-250FO	250	0.12	78 x 225	–	6	12
55640-500	500	0.20	100 x 259	19	–	1
55640-1L	1000	0.30	125 x 342	22	–	1
55640-2L	2000	0.5	161 x 357	27	–	1

65640 PYREXPLUS® Flask, Volumetric, Class A, Protective Coating, PYREX ⅀ Stopper

Flask features a protective PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. The graduation mark is easy to read. Supplied with ⅀ PYREX stopper.

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
65640-100	Complete	100	0.08	60 x 181	13	6	12
65640-200	Complete	200	0.10	74 x 214	13	6	12
65640-250	Complete	250	0.12	78 x 252	16	6	12
65640-500	Complete	500	0.20	100 x 287	19	6	12
65640-1L	Complete	1000	0.30	125 x 342	22	1	4
65640-2L	Complete	2000	0.50	161 x 357	27	1	2

For stopper only, see Cat. No. 7650.
WARNING: Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat.



5641 PYREX Flask, Volumetric, PYREX ⅀ Stopper

Economy flasks designed for those that do not require the precision accuracy of our Class A capacity flasks. Capacity tolerances are twice those specified for Class A volumetric ware. The graduation line is sharp and permanent; large white block letters make inscriptions easy to read. Supplied with interchangeable ⅀ ground glass stoppers.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
5641-10	10	0.04	28 x 99	9	–	12
5641-25	25	0.06	40 x 121	9	6	12
5641-50	50	0.10	51 x 151	9	6	12
5641-100	100	0.16	60 x 181	13	6	12
5641-200	200	0.20	74 x 214	13	6	12
5641-250	250	0.24	78 x 252	16	6	12
5641-500	500	0.40	100 x 287	19	6	12
5641-1L	1000	0.60	125 x 342	22	1	6
5641-2L	2000	1.0	161 x 388	27	1	4

For stopper only, see Cat. No. 7650.

5642 PYREX® Flask, Volumetric, Class A, Polyethylene ⅀ Stopper

The strength of these flasks has been increased appreciably through machine-blown bodies to which are sealed heavy-beaded, heavy-tubing necks, tooled for polyethylene stopper. The stopper is made with a closed bottom and is of linear high density polyethylene to conform to ⅀ stopper dimensions. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. The 2 mL size is test tube shaped.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
5642-5	5	0.02	26 x 91	8	–	1
5642-10	10	0.02	28 x 99	9	–	12
5642-25	25	0.03	40 x 121	9	6	12
5642-50	50	0.05	51 x 151	9	6	12
5642-100	100	0.08	60 x 181	13	6	12
5642-200	200	0.10	74 x 214	13	6	12
5642-250	250	0.12	78 x 252	16	6	12
5642-500	500	0.20	100 x 287	19	6	12
5642-1L	1000	0.30	125 x 342	22	1	6
5642-2L	2000	0.50	158 x 357	27	1	4

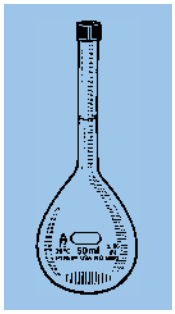
For stopper only, see Cat. No. 7624.

5644 PYREX Flask, Volumetric, Class A, PTFE Stopper

The strength of the flasks have been significantly increased through machine-blown bodies, which are sealed to heavy-tubing necks. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. Supplied with PTFE color-coded, keyhole stoppers.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
5644-10	10	0.02	28 x 99	9	–	12
5644-25	25	0.03	40 x 121	9	6	12
5644-50	50	0.05	51 x 151	9	6	12
5644-100	100	0.08	60 x 181	13	6	12
5644-200	200	0.10	74 x 214	13	6	12
5644-250	250	0.12	78 x 252	16	6	12
5644-500	500	0.20	100 x 287	19	6	12
5644-1L	1000	0.30	125 x 342	22	1	6
5644-2L	2000	0.50	158 x 357	27	1	4

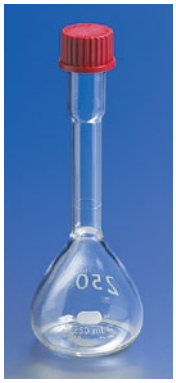
For stoppers only, see Cat. No. 7630.



5650 PYREX Flask, Volumetric, Class A, Screw Cap

These volumetric flasks conform to Class A capacity tolerances prescribed by ASTM. To facilitate transfer of crystals, salts, and powders, the open end has been expanded on the 25 mL and 50 mL sizes. The standard 18-410 G.P.I. thread screw caps have a durable cone-shaped polyethylene liner.

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
5650-25	Complete	25	0.03	40 x 100	18-410	6	12
5650-50	Complete	50	0.05	50 x 130	18-410	6	12
5650-100	Complete	100	0.08	60 x 160	18-410	6	12
5650-18CO	Cap only	–	–	–	18-410	12	12



5655 PYREX® Flask, EZ Access™ Volumetric, Class A, Screw Cap, To Contain

These heavy walled volumetric flasks are designed for extra durability and ease of use. The wide funnel-like screw top plus the wide neck design allows for easy filling and mixing of various materials into solution. This wide neck also allows access to larger capacity pipets. For added convenience, one size of the GL 32 chemical resistant, high temperature screw cap fits all flasks. This threaded cap with PTFE liner provides for a secure closure for leak proof storage of solutions. An additional extra large volume size is permanently screened onto the flask body for easy volume identification. These flasks are calibrated "to contain" and designed to meet Class A, ASTM tolerances for volumetrics. They are Lot Traceable* with certificates of compliance available in print. Accessories include replacement GL 32 caps and GL 32HTSC caps for use with Septa.

*Lot traceable information includes the date that the flask was fabricated, decorated, calibrated, and packed.
Note: Other available caps are Cat. Nos. 1395-32HTC, 1395-32HTSC, 1395-32SS, and 1395-32TS.

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. Thread Size	O.D. x Height (mm)	Qty/Cs
5655-50	Complete	50	0.05	GL 32	48 x 135	1
5655-100	Complete	100	0.08	GL 32	64 x 180	1
5655-200	Complete	200	0.10	GL 32	76 x 225	1
5655-250	Complete	250	0.12	GL 32	86 x 225	1
5655-500	Complete	500	0.20	GL 32	102 x 260	1
5655-1L	Complete	1000	0.30	GL 32	132 x 315	1

5660 PYREX Flask, Lifetime Red™, Volumetric, Class A, PYREX ⅌ Stopper, To Contain

The capacity mark is a fine line etched through a narrow red band into clear glass, making a filler unnecessary and giving high legibility, accuracy, and permanence. With ⅌ stopper. Calibrated "to contain."

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅌ Stopper No.	Qty/Pk	Qty/Cs
5660-25	Complete	25	0.03	40 x 122	9	6	12
5660-50	Complete	50	0.05	51 x 152	9	6	12
5660-100	Complete	100	0.08	60 x 182	13	6	12
5660-200	Complete	200	0.10	74 x 214	13	6	12
5660-250	Complete	250	0.12	78 x 253	16	6	12
5660-500	Complete	500	0.20	100 x 289	19	6	12
5660-1L	Complete	1000	0.30	125 x 344	22	1	6
5660-2L	Complete	2000	0.50	158 x 390	27	1	4

For stopper only, see Cat. No. 7650.

5680 PYREX Flask, Volumetric, Class A, Corning Certified and Serialized, PYREX ⅌ Stopper

Calibrated to Class A tolerances in accordance with ASTM E-542 and E-288. Each flask is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. Supplied with a ⅌ stopper.

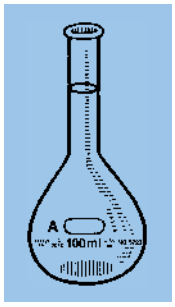
Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅌ Stopper No.	Qty/Cs
5680-10	Complete	10	0.02	28 x 99	9	1
5680-25	Complete	25	0.03	40 x 122	9	1
5680-50	Complete	50	0.05	51 x 152	9	1
5680-100	Complete	100	0.08	60 x 182	13	1
5680-200	Complete	200	0.10	74 x 214	13	1
5680-250	Complete	250	0.12	78 x 253	16	1
5680-500	Complete	500	0.20	100 x 288	19	1
5680-1L	Complete	1000	0.30	125 x 344	22	1
5680-2L	Complete	2000	0.50	158 x 390	27	1

For stopper only, see Cat. No. 7650.

55680 PYREX® Flask, Low Actinic, Volumetric, Class A, Certified/Serialized, PYREX ⅀ Stopper

Calibrated to Class A tolerances in accordance with ASTM E-542 and E-288. Each flask is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. The graduation line is sharp and permanent; large white block letters make the inscription easy to read. Supplied with a ⅀ stopper. Low actinic stained glass provides protection for materials sensitive to light. The protective color is an integral part of the flask, which retains the mechanical strength, chemical stability, and the thermal resistance of PYREX brand labware.

Cat. No.	Description	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Cs
55680-10	Complete	10	0.02	28 x 99	9	1
55680-25	Complete	25	0.03	40 x 122	9	1
55680-50	Complete	50	0.05	51 x 152	9	1
55680-100	Complete	100	0.08	60 x 182	13	1
55680-200	Complete	200	0.10	74 x 214	13	1
55680-250	Complete	250	0.12	78 x 253	16	1
55680-500	Complete	500	0.20	100 x 288	19	1
55680-1L	Complete	1000	0.30	125 x 344	22	1
55680-2L	Complete	2000	0.50	158 x 390	27	1



5720 PYREX Flask, 100 mL Bates Sugar Analysis Volumetric, Class A, Short Neck, Tooled Rim

These 100 mL Class A volumetric flasks have short necks and slightly flared tops and are used for the preparation of sugar solutions for polarization tests. They conform to ASTM E-694. Reference: Sugar Division of the National Bureau of Standards.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5720-100	100	0.08	60 x 130	1	1

5820 PYREX Flask, Class A, Mixing Volumetric Flask

The upper bulb, located between the stopper and the capacity graduation is approximately one-tenth the flask rated capacity. The 2L size upper bulb is only one-twentieth capacity. The additional bulb assists in the mixing of liquids or powders when shaken.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	⅀ Stopper No.	Qty/Pk	Qty/Cs
5820-100	100	0.08	60 x 185	13	6	12
5820-250	250	0.12	78 x 256	16	–	1
5820-500	500	0.20	100 x 322	19	–	1
5820-1L	1000	0.30	125 x 323	22	1	6
5820-2L	2000	0.50	158 x 397	27	–	1

For stopper only, see Cat. No. 7650.

5840 PYREX Flask, Volumetric, Phosphoric Acid, Wide Neck

For use in determining phosphoric acid in mixed fertilizer. Made of heavy construction throughout and with a wide neck.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
5840-200	200	0.18	74 x 152	6	12
5840-250	250	0.18	78 x 170	6	12

5860 PYREX Flask, Volumetric, Class A, Viscosimeter

Made of rugged mold blown construction, the flask is calibrated in accordance with ASTM specifications. U.S. Bureau of Mines Technical Paper 323B, No. 30.41; A.A.S.H.O. No. T 72; and Gas Chemists Handbook, third edition, page 538. Reference: ASTM D-88 and E-102.

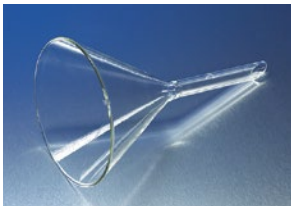
Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Qty/Cs
5860-60	60	0.05	53 x 91	12

FUNNELS

36060 PYREX® Funnel, Buchner, with Fritted Disc

These funnels are especially useful where filter paper would be attacked by the material being filtered. The disc should not be subjected to pressure differential in excess of 1 atmosphere. The top edge is beaded.

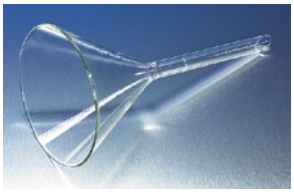
Cat. No.	Approx. Capacity (mL) and Porosity	O.D. of Disc (mm)	Approx. Height Above Disc (mm)	Approx. Stem Length x O.D. (mm)	Approx. Total Height (mm)	Qty/Pk	Qty/Cs
36060-2C	2C	10	30	31 x 7	70	1	9
36060-2F	2F	10	30	31 x 7	70	–	1
36060-15C	15C	20	47	75 x 8	136	–	6
36060-15F	15F	20	47	75 x 8	136	3	6
36060-15M	15M	20	47	75 x 8	136	–	6
36060-30C	30C	30	47	75 x 8	139	–	6
36060-30F	30F	30	47	75 x 8	139	–	6
36060-30M	30M	30	47	75 x 8	139	–	6
36060-60C	60C	40	58	75 x 10	160	–	6
36060-60F	60F	40	58	75 x 10	160	–	6
36060-60M	60M	40	58	75 x 10	160	–	6
36060-150C	150C	60	50	75 x 15	154	–	4
36060-150F	150F	60	50	75 x 15	154	–	4
36060-150M	150M	60	50	75 x 15	154	–	4
36060-350C	350C	80	75	75 x 20	180	–	3
36060-350F	350F	80	75	75 x 20	180	–	3
36060-350M	350M	80	75	75 x 20	180	–	3
36060-600C	600C	90	90	100 x 20	229	–	3
36060-600F	600F	90	90	100 x 20	229	–	1
36060-600M	600M	90	90	100 x 20	229	–	3
36060-2LC	2000C	127	165	110 x 25	330	–	2
36060-2LF	2000F	127	165	110 x 25	330	–	1
36060-2LM	2000M	127	165	110 x 25	330	–	2
36060-3LC	3000C	152	175	110 x 25	355	–	1
36060-3LF	3000F	152	175	110 x 25	355	–	1
36060-3LM	3000M	152	175	110 x 25	355	–	1



6100 PYREX Funnel, Plain 60° Angle, Long Stem, Large Size

Stems are approximately 15 mm O.D. by 150 mm (6") long.

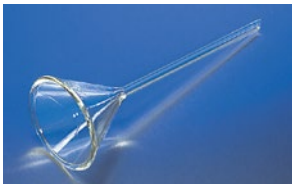
Cat. No.	Approx. Top I.D. (mm)	Approx. Length (mm)	Qty/Pk	Qty/Cs
6100-5	122	250	6	12
6100-6	147	272	6	12



6120 PYREX Funnel, Plain, 60° Angle, Short Stem, Large Size

Stems are approximately 15 mm O.D. by 100 mm (4") long.

Cat. No.	Approx. Top I.D. (mm)	Approx. Length (mm)	Qty/Pk	Qty/Cs
6120-5	122	199	6	12
6120-6	147	228	6	12



6140 PYREX® Funnel, Plain, 60° Angle, Long Stem

These funnels have a beaded edge for strength. They are fabricated from blanks formed to a 60° angle, which permits accurate fitting of the filter paper, thus reducing filtering time. The stems are made of heavy wall tubing approximately 150 mm (6") long.

Cat. No.	Approx. Top I.D. (mm)	Approx. Stem O.D. (mm)	Approx. Overall Length (mm)	Qty/Cs
6140-50	50	8	193	12
6140-65	65	8	206	12
6140-75	75	8	214	12
6140-100	100	9	236	6

6160 PYREX Funnel, Fluted, 60° Angle, Long Stem

Have a strong beaded edge. These funnels are fabricated from blanks formed to a 60° angle. In addition, they have depressed inside flutings which further decrease filtering time.

Cat. No.	Approx. Top I.D. (mm)	Approx. Stem Length x O.D. (mm)	Approx. Overall Length (mm)	Qty/Pk	Qty/Cs
6160-65	65	150 x 8	206	6	12
6160-75	75	150 x 8	214	–	1

6180 PYREX Funnel, Fluted, 60° Angle, Short Stem

Supplied with short stems. Depressed inside flutings further decreases filtering time.

Cat. No.	Approx. Top I.D. (mm)	Approx. Stem Length x O.D. (mm)	Approx. Overall Length (mm)	Qty/Pk	Qty/Cs
6180-50	50	65 x 8	108	12	48
6180-65	65	65 x 8	121	12	48
6180-75	75	75 x 8	139	12	48
6180-100	100	100 x 9	190	6	24

36210 PYREX Funnel, Hirsch Type, Fritted Disc

This type is very useful in preparation work, or in making separations where it is necessary to wash the precipitate and redissolve with chemicals which would attack filter paper. The angle of the funnel body facilitates the removal of precipitates.

Cat. No.	Approx. Top I.D. (mm)	Porosity	Approx. O.D. of Disc (mm)	Approx. Stem O.D. x Length (mm)	Approx. Length (mm)	Qty/Cs
36210-50C	50C	50C	20	8 x 75	118	1
36210-50M	50M	50M	20	8 x 75	118	1
36210-50F	50F	50F	20	8 x 75	118	1
36210-75C	75C	75C	30	8 x 70	139	1
36210-75M	75M	75M	30	8 x 70	139	1
36210-75F	75F	75F	30	8 x 70	139	1

6220 PYREX Funnel, Plain Filling, Powder

These funnels have a short stem. For use in transferring powders or filling bottles.

Cat. No.	Approx. I.D. (mm)	Approx. Stem Length x O.D. (mm)	Total Length (mm)	Qty/Pk	Qty/Cs
6220-65	65	15 x 15	83	12	24
6220-75	75	17 x 17	94	12	24
6220-100	100	20 x 20	120	6	24
6220-125	125	25 x 25	132	6	12
6220-150	150	30 x 30	157	6	12

6240 PYREX® Funnel, Plain Stemless

Molded construction with bottom ground flat; for use in the sugar industries. All have 6 mm opening.

Cat. No.	Approx. I.D. (mm)	Approx. Length (mm)	Qty/Pk	Qty/Cs
6240-75	75	60	12	48
6240-100	100	82	–	1

6302 PYREX Funnel, Squibb, Separatory, PYREX Stopper, Rotaflo® Stopcock

Features the Rotaflo stopcock and the strong, PYREX hollow stopper. A poly stopper is also included for your convenience. Stem O.D. is approximately 10 mm.

Cat. No.	Size (mL)	Body O.D. (mm)	Total Length (mm)	⅀ Stopper No.	Rotaflo Plug	Qty/Cs
6302-125	125	60	301	22	GP 3	1
6302-250	250	77	338	22	GP 3	1
6302-500	500	98	385	27	GP 6	1

For glass stopper only, see Cat. No. 7650. For poly stopper only, see Cat. No. 7624.

6305 PYREX Funnel, Funnel, Separatory, Squibb, PTFE Valve and Threaded Top

Improved Squibb type separatory funnel provides an unbreakable, all PTFE, valve and drip tip and has a screw thread closure at the top. Supplied complete with PTFE valve assembly and screw cap with PTFE faced silicone liner.

Cat. No.	Description	Approx. Capacity (mL)	Cap Size	Value Size (mm)	Qty/Cs
6305-60	Complete	60	GL 32	2	1
6305-250	Complete	250	GL 45	4	1
6305-500	Complete	500	GL 45	4	1
6305-1L	Complete	1000	GL 45	4	1
6305-2L	Complete	2000	GL 45	6	1
6305-4L	Complete	4000	GL 45	8	1
6305-60FO	Funnel only	60	–	–	1
6305-500FO	Funnel only	500	–	–	1
6305-2LFO	Funnel only	2000	–	–	1
6305-6LFO	Funnel only	6000	–	–	1
6305-6VO	Valve bottom, PTFE, 6 mm	–	–	–	1
6305-8VO	Valve bottom, PTFE, 8 mm	–	–	–	1

6340 PYREX Funnel, Separatory, Globe Shape, PYREX ⅀ Stopper, ⅀ Stopcock

These funnels are made from specially molded blanks which are tapered toward the stopcock to facilitate the separation of liquids. Their sturdy design makes them excellent for rack work.

Cat. No.	Approx. Capacity (mL)	⅀ Stopper No.	⅀ Stopcock Plug Size	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/Cs
6340-1L	1000	27	4	10 x 170	414	1

For stopper only, see Cat. No. 7650.

6383 PYREX® Funnel, Addition, Cylindrical, PYREX ⅋ Stopper, ⅋ PTFE Stopcock, Graduated from PTFE Stopcock

This funnel is graduated to show approximate capacity, has a micro-finish PTFE stopcock, and the strong, lightweight PYREX stopper.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	⅋ Stopper No.	⅋ Stopcock Plug Size	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
6383-125	125	1	22	2	10 x 65	315	1	4
6383-250	250	2	22	2	10 x 65	340	1	4
6383-500	500	5	27	4	10 x 65	390	1	4
6383-1L	1000	10	27	4	10 x 65	493	1	2

For stopper only, see Cat. No. 7650.

6383A PYREX Funnel, Addition, Cylindrical, ⅋ Joints, Graduated from ⅋ PTFE Stopcock

This funnel is graduated to show the approximate capacity.

Cat. No.	Description	Approx. Capacity (mL)	Grad. Increment (mL)	⅋ Stopcock Plug Size	⅋ Joint Size	Approx. Length (mm)	Qty/ Cs
6383A-100*	Addition Funnel	100	5	4	24/40	294	1

*This funnel is also a replacement part for organic chemistry kits (Cat. Nos. 6949 through 6949K).

6400 PYREX Squibb, Separatory, Pear-shaped, PYREX ⅋ Stopper, ⅋ Stopcock

Cat. No.	Approx. Capacity (mL)	⅋ Stopper No.	⅋ Stopcock Plug Size	Body O.D. (mm)	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
6400-30	30	9	2	40	10 x 65	216	–	1
6400-60	60	16	2	53	10 x 65	231	1	6
6400-125	125	22	2	63	10 x 65	279	1	6
6400-250	250	22	2	76	10 x 65	311	1	4
6400-500	500	27	4	98	10 x 65	354	1	4
6400-1L	1000	27	4	119	10 x 65	392	–	1
6400-2L	2000	38	6	160	12 x 65	496	–	1
6400-4L	4000	38	8	210	14 x 65	629	–	1
6400-6L	6000	38	10	235	16 x 65	630	–	1

For stopper only, see Cat. No. 7650.
For stopcock only, see Cat. No. 7280.

6402 PYREX Funnel, Squibb, Separatory, Pear-shaped, PYREX ⅋ Stopper, ⅋ PTFE Stopcock

The PTFE stopcock fits into the micro-finish barrel. The PTFE stopcock also reduces freezing problems and eliminates grease contamination.

Cat. No.	Description	Approx. Capacity (mL)	⅋ Stopper No.	⅋ Stopcock Plug Size	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
6402-60	Complete	60	16	2	10 x 65	225	1	4
6402-125	Complete	125	22	2	10 x 65	280	1	4
6402-250	Complete	250	22	4	10 x 65	311	1	4
6402-500	Complete	500	27	4	10 x 65	355	1	4
6402-1L	Complete	1000	27	4	10 x 65	392	–	1
6402-2L	Complete	2000	38	6	12 x 65	496	–	1
6402-4L	Complete	4000	38	8	14 x 90	620	–	1
6402-6L	Complete	6000	38	10	16 x 90	655	–	1

For stopper only, see Cat. No. 7650.

66402 PYREXPLUS® Funnel, Squibb, Separatory, Pear-shaped, Protective Coating, PYREX® ⅌ Stopper, ⅋ PTFE Stopcock

Features a PVC coating for longer product life and safety. Protective coating helps prevent glass from shattering and reduces spills. Autoclavable (121°C) and resistant to thermal shock. It features a PTFE stopcock which reduces freezing problems and grease contamination.

Cat. No.	Description	Approx. Capacity (mL)	⅌ Stopper No.	⅋ Stopcock Plug Size	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
66402-125	Complete	125	22	2	10 x 65	280	1	4
66402-250	Complete	250	22	4	10 x 65	311	1	4
66402-500	Complete	500	27	4	10 x 65	355	1	4
66402-1L	Complete	1000	27	4	10 x 65	392	–	1
66402-2L	Complete	2000	38	6	12 x 65	496	–	1

For stopper only, see Cat. No. 7650.
WARNING: Do not place over direct heat or flame. Do not heat above 121°C moist heat or 110°C dry heat.

6404 PYREX Funnel, Squibb, Separatory, Pear-shaped, Polyethylene Stopper, ⅋ PTFE Stopcock

The stopper is made with a closed bottom and is of linear high density polyethylene to conform to ⅌ stopper dimensions.

Cat. No.	Description	Approx. Capacity (mL)	⅌ Stopper No.	⅋ Stopcock Plug Size	Approx. O.D. x Length of Stem Below Stopcock (mm)	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
6404-60	Complete	60	16	2	10 x 65	244	1	4
6404-125	Complete	125	22	2	10 x 65	289	1	4
6404-250	Complete	250	22	4	10 x 65	311	1	4
6404-500	Complete	500	27	4	10 x 65	354	1	4
6404-1L	Complete	1000	27	4	10 x 65	392	–	1
6404-2L	Complete	2000	38	6	12 x 65	486	–	1

For stopper only, see Cat. No. 7624.

6406 PYREX® Funnel, Squibb, Separatory, Economy, with Replaceable PTFE Stopcock, Tip, and High Density Polyethylene Stopper

An economical separatory funnel designed to reduce replacement costs by providing replaceable components. These sturdy, durable funnels are designed for long life and maximum safety. The replaceable PTFE stopcock assembly features a simple screw thread locking nut and collar which ensure that the stopcock cannot fall out in use. The tip is also replaceable. Its ground end provides a better grip and helps prevent the tip from falling out. The funnel comes complete with a standard taper, high density polyethylene stopper. 7 mm O.D. stem.

Cat. No.	Description	Approx. Capacity (mL)	Stopper No.	Stopcock Plug Size	Approx. Total Length (mm) (Exclusive of Stopper)	Qty/ Pk	Qty/ Cs
6406-60	Complete	60	16	2	244	1	4
6406-125	Complete	125	22	2	289	1	4
6406-250	Complete	250	22	4	311	1	4
6406-500	Complete	500	27	4	319	1	4
6406-1L	Complete	1000	27	4	395	–	1
6406-2L	Complete	2000	38	4	482	–	1
6406-2LFO	Funnel only	2000	38	–	–	–	1
6406-60FO	Funnel only	60	–	–	–	1	4
6406-125FO	Funnel only	125	–	–	–	1	4
6406-250FO	Funnel only	250	–	–	–	1	4
6406-500FO	Funnel only	500	–	–	–	1	4
6406-1LFO	Funnel only	1000	–	–	–	–	1
2116-LSO	Locking stopcock only	–	–	–	–	–	1
6406-GTO	Tip only	–	–	–	–	12	36

6412A PYREX Funnel, Squibb, Separatory, PTFE Stopcock, Stopper

Cat. No.	Description	Approx. Capacity (mL)	Stopcock Plug Size	Joint Size Inner/Outer	Approx. Height (mm)	Qty/ Cs
6412A-125*	Complete	125	2	14/20	237	1

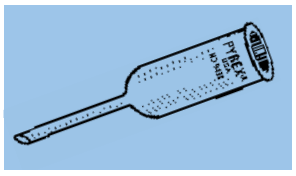
*This funnel is also a replacement for organic chemistry kits (Cat. Nos. 6949 through 6949K).

6413 PYREX Funnel, Squibb, Separatory, PTFE Stopcock

Cat. No.	Description	Approx. Capacity (mL)	Stopcock Plug Size	Joint Size Inner/Outer	Approx. Height (mm)	Qty/ Pk	Qty/ Cs
6413-125	Complete	125	2	19/22	246	1	4
6413-125FO	Funnel only	125	–	19/22	238	1	4

9480 PYREX Funnel, Filter Tube Funnel

The constricted lower end is approximately 8 mm O.D. by 75 mm long on all sizes. For use with PYREX brand crucibles with fritted discs listed under Cat. Nos. 32940 and 32960. Also for use with Gooch crucibles or directly with porcelain plates.



Cat. No.	Approx. I.D. x Length (mm)	Qty/Cs
9480-24	24 x 150	1
9480-27	27 x 150	1
9480-32	32 x 160	1
9480-36	36 x 160	1
9480-42	42 x 160	1

JARS

6885 PYREX® Jar, Bell, with Knob

These bell jars are made from specially selected mold-blown blanks. The bottom flange has a finely ground finish to assure tight sealing with ground glass plates. Rated 1-Atmosphere Vacuum. Do not use with heat or pressure applications.

Cat. No.	Approx. O.D. x Height (mm)	Approx. I.D. (mm)	Qty/Pk	Qty/Cs
6885-140	140 x 265	130	1	2
6885-165	165 x 315	156	1	2
6885-222	222 x 425	213	–	2

6886 PYREX Jar, Bell

These specially blown, sturdy, round bottom jars have a fine ground finish at the open end. The jar is supplied without a rim flange. The flat, ground, bearing surface has a contact area equal to the wall thickness at the open end of the jar. Do not use with heat, pressure, or vacuum applications.

Cat. No.	Approx. O.D. x Length (mm)	Min. I.D. (mm)	Approx. Capacity (Liters)	Approx. O.D. x Length (Inches)	Qty/Cs
6886-12L	318 x 305	292	12.3	12 1/2 x 12	1
6886-22L	318 x 457	292	22.7	12 1/2 x 18	1
6886-49L	457 x 457	429	49.2	18 x 18	1

Not intended for vacuum applications.

6902 PYREX Jar, Cloud and Pour Point, Graduated

Single line encircles the jar at a point approximately 51 mm above the bottom to assist in measuring the sample. Reference: ASTM D-97, D-1500, D-2500.

Cat. No.	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
6902	35 x 121	12	36

6941 PYREX Jar, Animal

Recommended for use as animal jars or for other purposes where resistance to hot air and steam sterilization is of importance. These jars are blown with walls approximately 4.5 mm (3/16") thick. The open ends are finished with a fire-polished bead to increase mechanical strength. Jars listed under Cat. No. 6942 can also be used as animal jars. Do not use with heat, pressure, or vacuum applications.

Cat. No.	Approx. O.D. x Height (mm)	Approx. O.D. x Height (Inches)	Approx. Capacity (Liters)	Qty/Cs
6941-3L	152 x 203	6 x 8	2.8	1
6941-5L	210 x 203	8 1/4 x 8	4.7	6

Not intended for vacuum applications.

6942 PYREX Jar, Cylindrical, Plain

These jars are mold-blown with substantial walls for mechanical strength. The open end of the jars is ground flat. These jars can also be used as animal jars. Do not use with heat, pressure, or vacuum applications.

Cat. No.	Approx. O.D. x Height (mm)	Approx. O.D. x Height (Inches)	Approx. Capacity (Liters)	Qty/Pk	Qty/Cs
6942-7L	222 x 254	8 3/4 x 10	7.5	1	4
6942-9L	257 x 254	10	9.5	–	1
6942-17L	305 x 305	12 x 12	17.0	–	1
6942-27L	305 x 457	12 x 18	26.5	–	1
6942-32L	406 x 305	16 x 12	32.0	–	1

6943 PYREX® Jar, Cylindrical, Handles

These jars are made with recessed finger grips for convenience in handling. They are identical in size and shape to corresponding jars sizes of Cat. No. 6942. Open ends are finely ground. Do not use with heat, pressure, or vacuum applications.

Cat. No.	Approx. O.D. x Height (mm)	Approx. O.D. x Height (Inches)	Approx. Capacity (Liters)	Qty/Cs
6943-17L	305 x 305	12 x 12	17.0	1
6943-27L	305 x 457	12 x 18	26.5	1
6943-36L	305 x 610	12 x 24	36.0	1

6944 PYREX Jar, Rectangular, Chromatography

Ground to the close tolerances needed for tight cover fit. Jar edges are ground flat within 0.25 mm. Covers are not supplied. Do not use with heat, pressure, or vacuum applications.

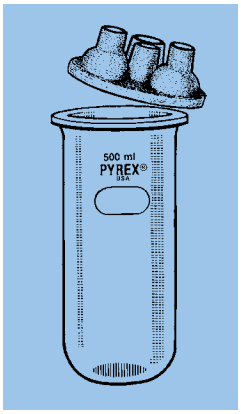
Cat. No.	Approx. L x W x H (mm)	Approx. L x W x H (Inches)	Approx. Capacity (Liters)	Qty/Cs
6944-4L	137 x 162 x 267	5 3/8 x 6 3/8 x 10 1/2	3.8	6
6944-11L	181 x 238 x 324	9 3/8 x 7 3/8 x 12 3/4	11.4	1

6945 PYREX Jar, Cylindrical, Chromatography

A general-purpose jar with tops ground to close tolerances to insure a tight cover fit. The 152 mm jar edge is flat within 0.1 mm; all others are flat within 0.25 mm. Covers are not supplied. Do not use with heat, pressure, or vacuum applications.

Cat. No.	Approx. O.D. x Height (mm)	Approx. O.D. x Height (Inches)	Approx. Capacity (Liters)	Qty/Cs
6945-6L	152 x 457	6 x 18	6.6	1
6945-13L	222 x 457	8 3/4 x 18	13.2	4
6945-36L	305 x 610	12 x 24	36.0	1

KETTLES



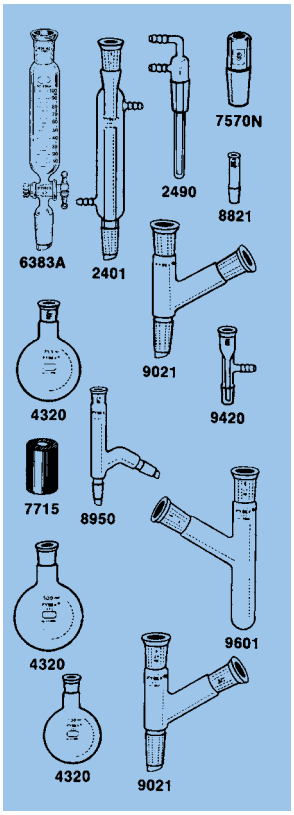
6947 PYREX Reaction Kettle, Resin

The 500 and 1000 mL kettles have interchangeable covers with four openings to accommodate 24/40 $ joints. Kettles of 2000, 3000, and 4000 mL capacity have interchangeable covers and have openings to accommodate three $ 24/40 joints and one $ 34/45 joint. Interchangeable $ joints allow quick assembly with condensers, stirrers, and funnels. Flanges of covers and bottoms are finely ground for a tight seal. For use with heating mantle only.

Cat. No.	Description	Approx Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
6947-500	Complete	500	133 x 207	–	1
6947-1L	Complete	1000	133 x 220	–	1
6947-2L	Complete	2000	140 x 239	–	1
6947-3L	Complete	3000	140 x 315	–	1
6947-4L	Complete	4000	140 x 395	–	1
6947-500BO	Bottom only	500	95 x 152	1	4
6947-1LBO	Bottom only	1000	108 x 165	–	4
6947-2LBO	Bottom only	2000	140 x 184	1	4
6947-3LBO	Bottom only	3000	140 x 260	1	4
6947-4LBO	Bottom only	4000	140 x 340	–	4
6947-2LCO*	Cover only	–	168 x 55	–	2
6947-500CO**	Cover only	–	137 x 55	1	2

*Fits 2L, 3L, and 4L.
**Fits 500 mL and 1000 mL.

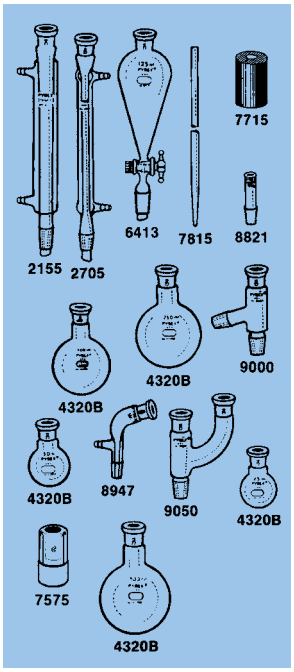
CHEMISTRY KITS



6949 PYREX® Chemistry Kit, ⅀ 24/40 Components

This basic kit is supplied complete with drawer-size polyethylene case in which components are mounted in foam. The kit's versatility enables many standard laboratory operations to be performed, such as: distillation, reaction with gas evolution, preparation or recovery, simple reflux, reflux with addition, fractional distillation, and vacuum distillation. The case is approximately 130 mm x 256 mm x 343 mm. For more detail on individual components of the kit and available parts, refer to the specific catalog numbers.

Cat. No.	Description	Qty/Pk	Qty/Cs
6949	Complete kit	–	1
2401-24	Condenser column, Liebig	–	1
2490-24	Condenser, cold finger	–	1
4320-100	Round bottom boiling flask, 100 mL	2	12
4320-250	Round bottom boiling flask, 250 mL	2	12
4320-500	Round bottom boiling flask, 500 mL	2	12
6383A-100	Funnel, graduated, 100 mL, cylindrical, PTFE stopcock	–	1
6949N-IO	Foam insert only	–	1
6949N-BO	Polyethylene box only	–	1
7570N-24	PYREX stopper	–	6
7715	Thermometer holder, rubber	–	1
8821-24	Tube, adapter outlet	–	1
8950-24	Tube, adapter, distilling	–	1
9021-24	Tube, adapter, connecting (2 per kit)	–	1
9420-24	Tube, adapter, vacuum distilling	1	6
9601-24	Tube, reaction vessel	–	1



6949E PYREX Chemistry Kit, ⅀ 19/22 Components

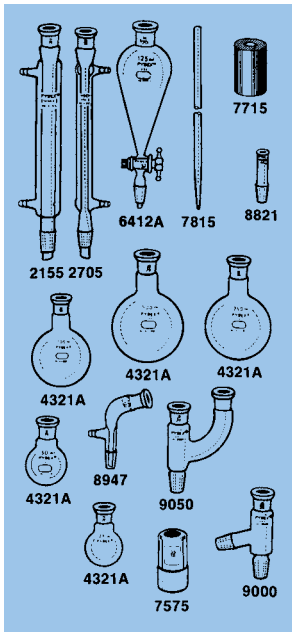
Similar to Cat. No. 6949, as many of the same standard laboratory experiments can be performed with this kit. It includes a distillation column and bleed tube for steam distillation or gas flow reactions. The components of the kit are held in foam within a polyethylene case. The overall case size is approximately 130 mm x 256 mm x 343 mm. For more detail on individual components of the kit and available parts, refer to the specific catalog numbers.

Cat. No.	Description	Qty/Pk	Qty/Cs
6949E	Complete kit	–	1
2155-19	Distilling column, 190 mm	–	1
2705-19	Condenser, West, 190 mm	2	4
4320B-25	Round bottom boiling flask, 25 mL	–	1
4320B-50	Round bottom boiling flask, 50 mL	–	1
4320B-100	Round bottom boiling flask, 100 mL	2	12
4320B-250	Round bottom boiling flask, 250 mL	–	1
4320B-500	Round bottom boiling flask, 500 mL	–	1
6413-125	Funnel, separatory, addition, pear-shaped, 125 mL, PTFE stopcock	1	4
6949E-BO	Polyethylene kit box only	–	1
6949E-IO	Foam insert only	–	1
7575-19	PYREX stopper	–	6
7715	Thermometer holder, rubber	–	1
7815-19	Tube, bleed	–	1
8821-19	Tube, adapter, straight, with thermometer opening	–	1
8947-19	Tube, connecting, vacuum	1	6
9000-19	Tube, connecting, 3-way	–	1
9050-19	Tube, connecting, Claisen	–	1

6949G-2 PYREX® Chemistry Kit, ⅋ 19/22 Components, Two PYREX Stoppers

Provides equipment for most common organic laboratory experiments described under Cat. No. 6949A. Note in particular the inclusion of a 250 mL flask with side tubulation, which is useful when performing steam distillations or experiments requiring an air bleed. This kit contains a three neck boiling flask to enable distillation while stirring and adding other compounds. The components of the kit are held in foam within a polyethylene case. The overall size of the case is approximately 130 mm x 256 mm x 343 mm. For more detail on individual components of the kit and available parts, refer to the specific catalog numbers.

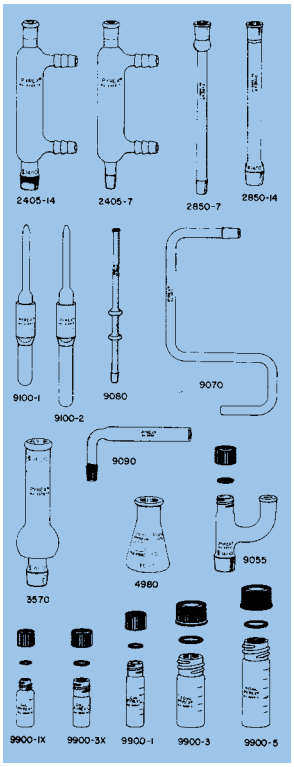
Cat. No.	Description	Qty/Pk	Qty/Cs
6949G-2	Complete kit	–	1
7715	Thermometer holder, rubber	–	1
2155-19	Distilling column, 190 mm	–	1
2705-19	Condenser, West, 190 mm	2	4
4320B-25	Round bottom boiling flask, 25 mL	–	1
4320B-50	Round bottom boiling flask, 50 mL	–	1
4320B-100	Round bottom boiling flask, 100 mL	2	12
4965B-500	Round bottom, 3-neck boiling flask, 500 mL	–	1
6413-125	Funnel, separatory, addition, pear-shaped, 125 mL, PTFE stopcock	1	4
6949E-BO	Polyethylene kit box only	–	1
6949E-IO	Foam insert only	–	1
7575-19	PYREX stopper	–	6
7815-19	Tube, bleed	–	1
8821-19	Tube, adapter, straight, with thermometer opening	–	1
8947-19	Tube, connecting, vacuum	1	6
9000-19	Tube, connecting, 3-way	–	1
9050-19	Tube, connecting, Claisen	–	1



6949K PYREX Chemistry Kit, ⅋ 14/20 Components

Similar to Cat. No. 6949E, except the component parts have a ⅋ 14/20 joint. The components are held in foam within a polyethylene case. The case is approximately 130 mm x 256 mm x 343 mm. For more detail on individual components of the kit and available parts, refer to the specific product catalog numbers.

Cat. No.	Description	Qty/Pk	Qty/Cs
6949K	Complete Kit	–	1
2155-14	Distilling column, 190 mm	–	1
2705-14	Condenser, West, 190 mm	–	1
4321A-25	Round bottom boiling flask, 25 mL	–	1
4321A-50	Round bottom boiling flask, 50 mL	–	1
4321A-100	Round bottom boiling flask, 100 mL	1	12
4321A-250	Round bottom boiling flask, 250 mL	–	1
4321A-500	Round bottom boiling flask, 500 mL	–	1
6412A-125	Funnel, separatory, addition, pear-shaped, 125 mL, PTFE stopcock	–	1
6949E-BO	Polyethylene kit box only	–	1
6949E-IO	Foam insert only	–	1
7575-14	PYREX stopper	–	6
7715	Thermometer holder, rubber	–	1
7815-19	Tube, bleed	–	1
8821-14	Tube, adapter, straight, with thermometer opening	–	1
8947-14	Tube, connecting, vacuum	–	1
9000-14	Tube, connecting, 3-way	–	1
9050-14	Tube, connecting, Claisen	–	1

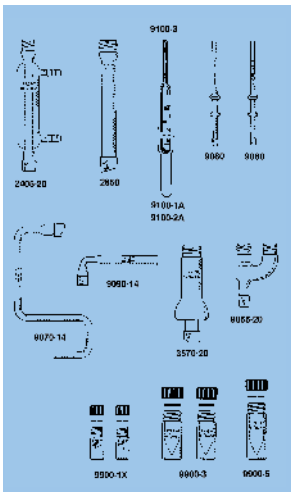


6949M-1 PYREX® Chemistry Kit, Deluxe Version, Micro-organic, ⅋ 7/10 and 14/10 Components

The deluxe micro-organic kit is supplied with all the necessary components needed to perform experiments covered in the Mayo, Pike, Butcher text, *Microscale Organic Laboratory*. Components come in ⅋ 7/10 and 14/10 joint sizes. A selection of conical reaction vials from 0.1 mL to 5.0 mL capacity is included. All components are mounted in foam within a polyethylene case for easy storage.

Cat. No.	Description	Qty/Pk	Qty/Cs
6949M-1	Kit deluxe	–	1
2405-7	Jacketed condenser, 7/10M-7/10F	1	2
2405-14	Jacketed condenser, 14/10M-7/10F	1	2
2850-7	Air reflux condenser, 7/10M-7/10F	2	6
2850-14	Air reflux condenser, 14/10M-7/10F	2	6
3570-14	Hickman still head, 14/10M-14/20F	1	2
4980-10	Flask, 10 mL	–	12
9055-14	Claisen head, 14/10M-7/10F	1	6
9070-7	Capillary gas delivery tube, 7/10M	1	4
9080	Gas chromatograph collection tube, 5/5M	1	6
9090-7	Drying tube, 7/10M	1	6
9100-1	Craig recrystallization tube, 1 mL	2	6
9100-2	Craig recrystallization tube, 2 mL	2	6
9900-1X	Conical reaction vial, 0.1 mL, 5/5F	6	12
9900-1	Conical reaction vial, 1.0 mL, 7/10F	6	12
9900-3X	Conical reaction vial, 0.3 mL, 7/10F	6	12
9900-3	Conical reaction vial, 3.0 mL, 14/10F	6	12
9900-5	Conical reaction vial, 5.0 mL, 14/10F	6	12

*Published by John F. Wiley.

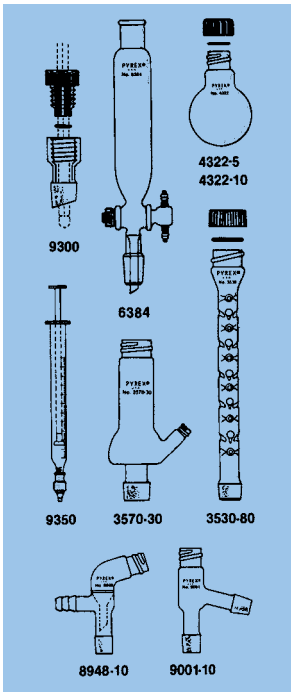


6949M-4 PYREX Chemistry Kit, Deluxe Version, Micro-organic, ⅋ 14/10 Components

Threaded Components. The deluxe micro-organic kit is supplied with all the necessary components needed to perform experiments covered in the Mayo, Pike, Butcher text, *Microscale Organic Laboratory*.* Components come in ⅋ 14/10 threaded joint sizes. A selection of conical reaction vials from 0.1 mL to 5.0 mL capacity is included. The Craig Recrystallization tube has a PTFE plug which eliminates breakage normally associated with glass plugs. All components are mounted in foam within a polyethylene case for easy storage.

Cat. No.	Description	Qty/Pk	Qty/Cs
6949M-4	Kit deluxe threaded	–	1
2405-20	Jacketed condenser, 14/10 Threaded	1	2
2850-20	Air reflux condenser, 14/10 Threaded	2	6
3570-20	Hickman still head, 14/10 Threaded	1	2
9055-20	Claisen head, 14/10 Threaded	2	6
9070-14	Capillary gas delivery tube, 14/10	2	4
9080	Gas chromatograph collection tube, 5/5M	1	6
9090-14	Drying tube, 14/10	2	6
9100-1A	Craig receiver only, 1 mL	2	6
9100-2A	Craig receiver only, 2 mL	2	6
9100-3	PTFE plug only for craig tube	1	6
9900-1X	Conical reaction vial, 0.1 mL, 5/5F	6	12
9900-3	Conical reaction vial, 3.0 mL, 14/10F	6	12
9900-5	Conical reaction vial, 5.0 mL, 14/10F	6	12

*Published by John F. Wiley.



6949M PYREX® Chemistry Kit, Accessories for Microscale

Listed are additional items most often used in conjunction with the 6949M series Microscale Organic Chemistry kits. Items include round bottom flasks, separatory funnels, distillation columns, Hickman still heads, thermometers, vacuum adaptors, connecting tubes, syringes, crystallizing dishes, GC adaptors, spin vanes, replacement vial caps, O-rings, and septa.

Cat. No.	Description	Qty/Pk	Qty/Cs
3140-70	3140 dish 70 x 50	6	24
3140-80	3140 dish 80 x 40	6	24
3140-90	3140 dish 90 x 50	6	18
3140-100	3140 dish 100 x 50	6	18
3140-125	3140 dish 125 x 65	4	12
3140-150	3140 dish 150 x 75	4	8
3530-80	3530 distillation column vigreux with cap 75 mm 14/10 threaded	1	2
3570-30	3570 Hickman still head with sidearm port/cap 14/10	1	2
4321A-5	4321A flask 5 mL	2	12
4321A-10	4321A flask 10 mL	2	12
4322-5	4322 flask RB 5 mL 14/10 with cap	2	12
4322-10	4322 flask RB 10 mL 14/10 with cap	2	12
6384-25	6384 separatory funnel cylindrical 25 mL, 2 mm PTFE stopcock, 14/10	1	2
6949M-CB	Clear compartment box	–	1
7095B-5X	Pipet, Pasteur 5 3/4"	50	1000
7095B-9	Pipet, Pasteur 9"	50	1000
8948-10	8948 vacuum adapter with hose connection 14/10 threaded	–	2
9001-10	9001 connecting tube 14/10 threaded top	1	2
9300-14	9300 thermometer adapter assembly, 14/10 (bushing, O-ring, adapter)	–	2
9300-24	Vacuum adapter with sideport	–	1
9300-34	Sublimation condenser tube only	–	1
9350-1	9350 syringe 1 mL with TFE tip plunger, without needle	1	2
9900-1C	9900-1C cap for 0.1 mL vial	–	12
9900-3C	9900-3C cap for 0.3/1.0 mL vial	–	12
9900-5C	9900-5C cap for 3.0/5.0 mL vial	–	12
9900-1R	9900-1R O-ring for 0.1 mL vial	–	12
9900-2R	9900-2R O-ring for 0.3/1.0 mL vial and Claisen adapter	–	12
9900-3R	9900-3R O-ring for 3.0/5.0 mL vial	–	12
9900-1S	9900-1S PTFE silicone septa for 0.1 mL vial	–	12
9900-2S	9900-2S PTFE silicone septa for 0.3/1.0 mL vial	–	12
9900-3S	9900-3S PTFE silicone septa for 3.0/5.0 mL vial	–	12
9900-1V	9900-1V Spin vane for 1.0 mL vial	–	6
9900-3V	9900-3V Spin vane for 3.0/5.0 mL vial	–	6

PIPETS

7065 PYREX® Pipet, Reusable Glass, Measuring, Color-coded, with Colored Markings, To Deliver

These pipets are color-coded by size for easy identification and sorting. Colored graduations are enameled onto the glass. The top end of 5 mL to 25 mL sizes is constricted (Mohr type). They are calibrated "To Deliver" their total capacity without blow-out.

Cat. No.	Approx. Capacity (mL)	Tol. (± mL)	Grad. Increment (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
7065-1X	0.1	.005	.01	7 x 300	6	12
7065-1	1.0	.02	.1	7 x 325	6	12
7065-1C	1.0	.02	.01	7 x 350	6	12
7065-2	2.0	.02	.1	7 x 350	6	12
7065-5	5.0	.04	.1	8 x 350	6	12
7065-10	10.0	.06	.1	10 x 380	6	12
7065-25	25.0	.1	.1	14 x 440	–	12

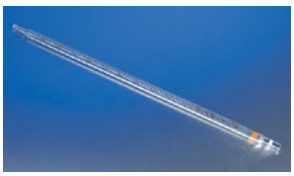
Do not pipet by mouth. We suggest using a mechanical pipetting device.
Reference: ASTM E-1293.

7070 PYREX Pipet, Reusable Glass, Serialized/Certified, Class A, Colored Markings, Measuring, Color-coded, To Deliver

Calibrated to Class A tolerances in accordance with ASTM E-542, ATSM E-694, and ASTM E-1293. Each pipet is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. Calibrated "To Deliver" their total capacity without blow-out. Color-coded by size for easy identification. Colored graduations are enameled onto the glass. The top end of 5 mL to 25 mL sizes is constricted (Mohr type).

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
7070-1	1.0	0.1	.01	7 x 325	2	6
7070-2	2.0	0.1	.01	7 x 350	2	6
7070-5	5.0	0.1	.02	8 x 350	2	6
7070-10	10.0	0.1	.03	10 x 380	2	6
7070-25	25.0	0.1	.05	14 x 440	2	6

Do not pipet by mouth. We suggest using a mechanical pipetting device.

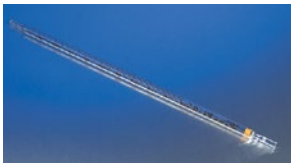


7085 PYREX Pipet, Reusable Glass Serological, Color-coded, Colored Markings, To Deliver

These pipets are color-coded by size for easy identification and sorting. Colored graduations are enameled onto the glass. Calibrated "To Deliver" pipets must be blown out to obtain total rated capacity.

Cat. No.	Approx. Capacity (mL)	Tol. (± mL)	Grad. Increment (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
7085-1X	0.1	.005	.01	7 x 300	6	12
7085-2X	0.2	.008	.01	7 x 300	6	12
7085-1	1.0	.02	.1	7 x 350	6	12
7085-1C	1.0	.02	.01	7 x 350	6	12
7085-2	2.0	.02	.1	7 x 350	6	12
7085-2C	2.0	.02	.01	7 x 350	6	12
7085-5	5.0	.04	.1	8 x 350	6	12
7085-10	10.0	.06	.1	10 x 350	–	12

Do not pipet by mouth. We suggest using a mechanical pipetting device.
Reference: ASTM E-1044.



7086 PYREX® Pipet, Reusable Glass Serological, Color-coded, Color Markings, To Deliver

These pipets are designed for cotton plugging. The uniform top-end openings permit performing of plugs and allow precise control of liquid column. Color-coded by size for easy identification and sorting. Colored graduations are enameled onto the glass. The two rings indicate the pipet is calibrated "To Deliver" its total capacity when the last drop is blown out. Reference: ASTM E-1044.

Cat. No.	Approx. Capacity (mL)	Tol. (± mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
7086-5	5	0.04	0.1	8 x 350	6	12
7086-10	10	0.06	0.1	10 x 350	6	12

Do not pipet by mouth. We suggest using a mechanical pipetting device.

7087 PYREX Pipet, Reusable Glass Serological, Large Tip Opening, Color-coded, Colored Markings, To Deliver

Made with a large tip opening to allow more rapid intake and delivery of suspensions and viscous materials. Color-coded by size for easy identification and sorting. Colored graduations are enameled onto the glass. The two narrow bands or one wide band at the top indicate the pipet is calibrated "To Deliver" its total capacity when the last drop is blown out.

Cat. No.	Approx. Capacity (mL)	Grad. Range (mL)	Tol. (± mL)	Grad. Increment (mL)	Approx. O.D. x Length (mm)	Qty/ Pk	Qty/ Cs
7087-5	5.0	0-4.9	0.04	.1	8 x 350	6	12
7087-10	10.0	0-9.5	0.06	.1	10 x 350	–	12
7087-25	25.0	0-24	0.10	.1	14 x 440	–	12

Do not pipet by mouth. We suggest using a mechanical pipetting device.

7100 PYREX Pipet, Reusable Glass Volumetric, Class A, Color-coded, Colored Markings

These pipets are manufactured to Class A capacity tolerances as indicated by ASTM E-542, ASTM E-694, and ASTM E-969. The rugged construction and colored enamel graduations and markings provide a durable pipet. Sizes 1 mL through 25 mL are color-coded.

Cat. No.	Color Code	Capacity (mL)	Tol. (± mL)	Length (mm)	Qty/Cs
7100-1	Blue	1.0	.006	313	12
7100-2	Orange	2.0	.006	333	12
7100-3	Black	3.0	.01	356	12
7100-4	Red	4.0	.01	370	12
7100-5	White	5.0	.01	392	12
7100-10	Red	10.0	.02	429	12
7100-15	Green	15.0	.03	400	12
7100-20	Yellow	20.0	.03	460	12
7100-25	Blue	25.0	.03	460	12
7100-50*	–	50.0	.05	516	12
7100-100	–	100.0	.08	565	12

*New design allows more complete and efficient drainage. Do not pipet by mouth. We suggest using a mechanical pipetting device.

7101 PYREX® Pipet, Serialized/Certified, Class A, Volumetric, Color-coded, Colored Graduations

Calibrated to Class A tolerances in accordance with ASTM E-542, ASTM E-694 and ASTM E-969. Each pipet is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. Sizes 1 mL through 25 mL are color-coded with colored graduations enameled onto the glass.

Cat. No.	Color Code	Capacity (mL)	Tol. (± mL)	Approx. Length (mm)	Qty/Pk	Qty/Cs
7101-1	Blue	1.0	.006	313	2	6
7101-2	Orange	2.0	.006	333	2	6
7101-3	Black	3.0	.01	356	2	6
7101-4	Red	4.0	.01	370	2	6
7101-5	White	5.0	.01	392	2	6
7101-10	Red	10.0	.02	429	2	6
7101-15	Green	15.0	.03	445	2	6
7101-20	Yellow	20.0	.03	516	2	6
7101-25	Blue	25.0	.03	521	2	6
7101-50	–	50.0	.05	516	2	6
7101-100	–	100.0	.08	565	2	6

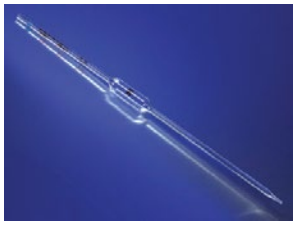
Do not pipet by mouth. We suggest using a mechanical pipetting device.

7102 PYREX Pipet, Reusable Glass Volumetric, Color-coded

These pipets were designed primarily for schools and laboratories where the Class A tolerance of Cat. No. 7100 is not required. They are constructed to the same wall thickness and length as Cat. No. 7100, but have larger tip openings for faster delivery. It is primarily due to this faster delivery that accuracy tolerances are twice those specified for Class A volumetric ware. Sizes 0.5 mL through 25 mL are color-coded.

Cat. No.	Color Code	Capacity (mL)	Tol. (± mL)	Approx. Length (mm)	Qty/Pk	Qty/Cs
7102-1X	Black	.5	.012	318	6	12
7102-1	Blue	1.0	.012	313	6	12
7102-2	Orange	2.0	.012	333	6	12
7102-3	Black	3.0	.02	356	6	12
7102-5	White	5.0	.02	392	6	12
7102-10	Red	10.0	.04	429	6	12
7102-20	Yellow	20.0	.06	460	6	12
7102-25	Blue	25.0	.06	460	6	12
7102-50*	–	50.0	.10	516	6	12
7102-100	–	100.0	.16	565	6	12

Do not pipet by mouth. We suggest using a mechanical pipetting device.
*Design allows more complete and efficient drainage.
Reference: ASTM E-969.

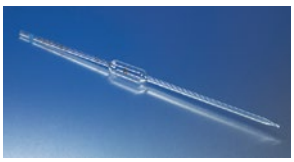


7103 PYREX® Pipet, Reusable Glass, Volumetric, To Contain, To Deliver, Class A

These precision pipets are manufactured and calibrated "to contain" (bottom line) and "to deliver" (top line) to specifications for Class A volumetric ware.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. Length (mm)	Color Code	Qty/Cs
7103-1	1	0.006	313	Blue	6
7103-2	2	0.006	333	Orange	6
7103-3	3	0.01	356	Black	6
7103-4	4	0.01	370	Red	6
7103-6	6	0.01	420	Orange	6
7103-7	7	0.01	420	Green	6
7103-8	8	0.02	425	Blue	6
7103-10	10	0.02	429	Red	6
7103-15	15	0.03	445	Green	6
7103-20	20	0.03	516	Yellow	6
7103-25	25	0.03	521	Blue	6

Do not pipet by mouth. We suggest using a mechanical pipetting device.



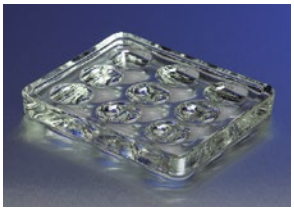
7103C PYREX Pipet, Serialized/Certified, Class A, Volumetric, Color-coded, Colored Graduations, To Contain, To Deliver

Calibrated to Class A tolerances in accordance with ASTM E-542 and ASTM E-969. Each pipet is individually serialized and supplied with a Certificate of Identification and Capacity, traceable to NIST standards. These precision pipets are manufactured and calibrated "To Contain" (bottom line) and "To Deliver" (top line) to specifications for Class A volumetric ware. Sizes 1 mL through 25 mL are color-coded with colored graduations enameled onto the glass.

Cat. No.	Color Code	Capacity (mL)	Tol. (± mL)	Length (mm)	Qty/Pk	Qty/Cs
7103C-1	Blue	1.0	.006	313	2	6
7103C-2	Orange	2.0	.006	333	2	6
7103C-3	Black	3.0	.01	356	2	6
7103C-4	Red	4.0	.01	370	2	6
7103C-5	White	5.0	.01	392	2	6
7103C-6	Orange	6.0	.01	420	2	6
7103C-7	Green	7.0	.01	420	2	6
7103C-8	Blue	8.0	.02	425	2	6
7103C-9	Black	9.0	.02	425	2	6
7103C-10	Red	10.0	.02	429	2	6
7103C-15	Green	15.0	.03	445	2	6
7103C-20	Yellow	20.0	.03	516	2	6
7103C-25	Blue	25.0	.03	521	2	6

Do not pipet by mouth. We suggest using a mechanical pipetting device.

PLATES



7220 PYREX Spot Plates, Nine Depression

These pressed plates have concave depressions which are useful for soil chemistry, color reactions, microchemical applications, and microscopic observations. Nine concave depressions approximately 22 mm O.D. x 7 mm deep.

Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
7220-85	85 x 100	6	18

SETTLOMETER

7250 PYREX® Mallory Direct Reading Settlometer

Used with oxidized sludge process for treatment of sewage and other wastes. 2000 mL heavy wall cylinder measures approximately 5 1/8" I.D. x 7 1/2" high and is graduated in cc per liter, and in hundredths of a foot.

Cat. No.	Description	Qty/Cs
7250-2L	Direct Reading Settlometer	1

STOPCOCKS

7470 PYREX Stopcock, Body, Rotaflo® PTFE High Performance, Two-way, In-line, Plain Bore

Cat. No.	Approx. Plug Bore (mm)	Approx. Length (mm)	Approx. O.D. of Sidearms (mm)	Qty/Cs
7470-3	0-3	210	8	1
7470-6	0-6	210	10	1
7470-10	0-10	224	13	1

7473 PYREX Stopcock, Body, Rotaflo PTFE High Performance, Two-way, 90° Angle, Plain Bore

Cat. No.	Approx. Plug Bore (mm)	Approx. Height (mm)	Approx. Sidearm Length (mm)	Approx. O.D. of Sidearms (mm)	Qty/Cs
7473-3	0-3	155	102	8	1
7473-6	0-6	160	102	10	1
7473-10	0-10	175	102	13	1

7475 PYREX Stopcock, Brand Body, Rotaflo PTFE High Performance, Three-way, Plain Bore

Cat. No.	Approx. Plug Bore (mm)	Approx. Overall Length (mm)	Approx. O.D. of Sidearms (mm)	Qty/Cs
7475-3	0-3	215	8	1
7475-6	0-6	220	10	1

7681 PYREX PTFE Stopcock, Plug Assembly, Straight Bore

Cat. No.	Approx. Plug Bore (mm)	O-ring Size	Qty/Cs
7681-2	2	A	1
7681-4	4	B	6
7681-8	8	C	1
7681-6	6	B	1

STOPPERS, CAPS, AND CLOSURES

7570N PYREX Stopper, Ground Joint

Hollow, full length stopper closed at the bottom. Interchangeable with standard taper joints.

Cat. No.	Ground Joint Size	Height Above Ground Joint (mm)	Qty/Pk	Qty/Cs
7570N-24	24/40	40	–	6
7570N-19	19/38	33	–	6

7575 PYREX® Stopper, Combination Reagent Bottle/Ground Joint, Hollow

Cat. No.	Ground Joint Size	Height Above Ground Joint (mm)	Qty/Cs
7575-14*	14/20	28	6
7575-19**	19/22	32	6
7575-24	24/30	41	6
7575-29	29/35	41	6

*Cat. No. 7575-14 is a replacement part for organic chemistry kit Cat. No. 6949K.
**Cat. No. 7575-19 is a replacement part for organic chemistry kits Cat. Nos. 6949E, 6949F, and 6949G-2.

7624 PYREX Stopper, HDPE Polyethylene, Improved Form

These blue and white stoppers are made with closed bottoms, of linear high-density polyethylene to conform to stopper dimensions. The three unit rings on the base provide an efficient seal. The improved design fully protects the neck in the event of accidental tipping. These stoppers may be used in place of the conventional flask stoppers.

Cat. No.	Stopper No.	Qty/Cs
7624-8	8	6
7624-9	9	6
7624-13	13	6
7624-16	16	6
7624-19	19	6
7624-22	22	6
7624-27	27	6
7624-32	32	6
7624-38	38	6

7630 PYREX Stopper, PTFE, Key-hole, Color-coded

These stoppers are made to conform to stopper dimensions. The color-coded keys make sorting and selecting the correct size much faster and easier. These stoppers may be used in place of the conventional flask stopper.

Cat. No.	Stopper No.	Color	Qty/Pk	Qty/Cs
7630-9	9	Black	2	6
7630-13	13	Orange	2	6
7630-16	16	Blue	2	6
7630-19	19	Green	2	6
7630-22	22	Yellow	2	6
7630-27	27	Red	2	6

7650 PYREX® ⅀ Stopper, Hollow

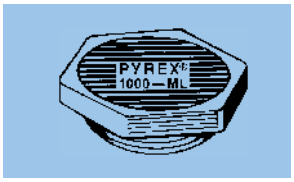
The hollow stopper is light in weight, yet very strong to reduce chipping and breakage, thus minimizing replacement costs. A barrel-shaped head means it is easy to clean and even easier to rotate in or out. Grooves in the sides help prevent slippage. The flat top allows the stopper to stand on its head, which frees the user's hand and minimizes potential contamination. This stopper is interchangeable with other common flask stoppers and fits all standard labware of comparable ⅀ size.

Cat. No.	⅀ Stopper No.	Approx. Length of Ground Zone (mm)	Height (mm)	Height Above Ground Joint (mm)	Qty/Cs
7650-8	8	10	32	25	6
7650-9	9	14	36	25	6
7650-13	13	14	36	25	6
7650-16	16	15	43	31	6
7650-19	19	17	46	32	6
7650-22	22	20.5	54	38	6
7650-27	27	21.5	54	37	6
7650-32	32	21.5	59.5	44	6
7650-38	38	30.0	77	52	6

7661 PYREX ⅀ Stopper, Solid, Pennyhead

Pennyhead ⅀ stoppers are generally used in flasks and separatory funnels.

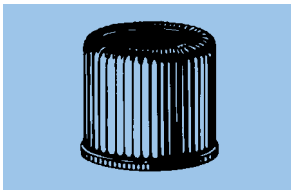
Cat. No.	⅀ Stopper No.	Approx. Length of Ground Zone (mm)	Height Above Ground Joint (mm)	Qty/Cs
7661-9	9	14	20	6
7661-13	13	14	25	6
7661-16	16	15	25	6
7661-22	22	20.5	30	6
7661-27	27	21.5	37	6



7666 PYREX Closure, LDPE Polyethylene, Snap Cap

These blue caps provide an economical closure for certain volumetric flasks. Refer to volumetric flask listings to determine sizes and whether the flask is designed to take such a cap.

Cat. No.	Snap Cap No.	Qty/Cs
7666-10	10	6
7666-25	25	6
7666-50	50	6
7666-100	100	6
7666-200	200	6
7666-250	250	6
7666-500	500	6
7666-1L	1000	6
7666-2L	2000	6



9998 Corning® Cap, Phenolic, PTFE Liner

This cap is fabricated of a resin specially formulated to resist the effects of temperature and steam in autoclaving. Caps are provided with a glued-in rubber liner over which is firmly bonded a PTFE interface which provides a highly inert sealing face.

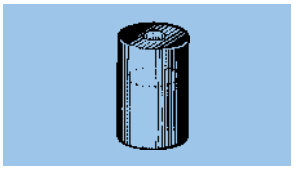
Cat. No.	G.P.I. Thread Finish	Approx. Outside Height (mm)	Qty/Cs
9998-13	13-415	13.5	288
9998-15	15-415	16.0	288
9998-18	18-415	17.5	192
9998-24	24-400	12.5	12
9998-241	24-410	18.5	144

9999 Corning Cap, Phenolic, Rubber Liner

These caps are fabricated of a resin specially formulated to resist the effects of temperature and steam in autoclaving. Caps have a glued-in, white rubber liner.

Cat. No.	G.P.I. Thread Finish	Approx. Outside Height (mm)	Qty/Pk	Qty/Cs
9999-24	24-400	12.5	–	12
9999-28	28-400	12.5	–	144
9999-38	38-400	12.5	36	144
9999-40	40-400	12.5	–	72
9999-241	24-410	18.5	36	144
9999-281	28-410	20.0	–	12
9999-132	13-415	13.5	36	288
9999-152	15-415	16.0	–	288
9999-182	18-415	17.5	32	192
9999-381M	38-430 Deeper Threads	27.0	12	72

THERMOMETERS



7715 Corning Thermometer Holder, Rubber

Cat. No.	Approx. O.D. x I.D. (mm)	Qty/Cs
7715	17 x 13	1

TISSUE GRINDERS

7722 PYREX® Tissue Grinder, Dounce, 2 Glass Pestles

Supplied with two pestles to ensure dissociation of cells into fine particles with minimal damage to cell nuclei. Use the large clearance pestle for initial reduction of soft tissue. Complete the homogenization with the small clearance pestle. Particularly useful in enzyme studies where heat build-up must be avoided.

Cat. No.	Approx. Capacity (mL)	Approx. Body O.D. x Height (mm)	Qty/Cs
7722-7	7	15 x 117	1
7722-15	15	20 x 145	1
7722-40	40	27 x 210	1

7724 PYREX® Tissue Grinder, Glass Pestle

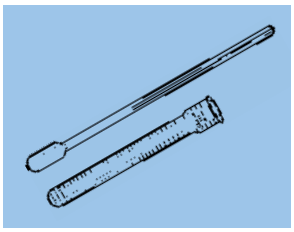
Designed to handle both initial grinding and final homogenization in the same sequence of operations. The lower conical section is intended primarily for the initial grinding. To assist in this work the clearance between mortar and pestle can be adjusted at will by raising or lowering the pestle. The upper cylindrical section is for the final homogenization.

Cat. No.	Approx. Capacity (mL)	Approx. Body O.D. x Height	Approx. Pestle O.D. x Height (mm)	Qty/Cs
7724-1	1	19 x 83	7 x 155	1
7724-3	3	13 x 125	6 x 208	1
7724-5	5	25 x 150	11 x 225	1
7724-15	15	20 x 175	10 x 267	1

7724T PYREX Tissue Grinder, PTFE Pestle with Steel Shaft

Recommended for soft tissues found in the liver and brain. Designed to handle both initial grinding and final homogenization in the same sequence of operations. Mortar is unground and the pestle contact surface is PTFE, threaded onto a stainless steel shaft.

Cat. No.	Approx. Capacity (mL)	Approx. Body O.D. x Height (mm)	Qty/Cs
7724T-1	1	13 x 110	1



7725 PYREX Tissue Grinder, Glass Pestle

These tissue grinders (homogenizers) are used in preparing small samples for pathological and biochemical studies. Designed to be motor-driven. Use a friction clutch to eliminate damage to the pestle from pieces of connective tissue or muscle. The clearance between the ground tube and pestle is approximately 0.15 mm. The parts are ground to a medium grind to insure adequate abrasive qualities, yet deliver a fine homogenous sample.

Cat. No.	Description	Working Capacity (mL)	Approx. Body O.D. x Length (mm)	Qty/Pk	Qty/Cs
7725-13	Complete	3	16 x 100	1	4
7725-16	Complete	9	18 x 150	1	4
7725-19	Complete	16	21 x 150	1	4
7725-25	Complete	50	27 x 200	–	1

Caution: If used with a motor-driven device, the attachment must contain some form of friction release clutch to prevent damage to the apparatus. The user should wear a protective glove of sufficient thickness to prevent injury in the event of failure of the glass components.

7725T PYREX Tissue Grinder, Potter-Elvehjem, PTFE Pestle

Homogenization occurs as the sample and buffer are forced through the cylindrical portion of the mortar as the pestle is rotated downward. Mortar is unground and pestle contact surface is PTFE threaded onto a stainless steel shaft.

Cat. No.	Approx. Capacity (mL)	Approx. Body O.D. x Height (mm)	Qty/Cs
7725T-5X	0.5	9x50	1
7725T-1	1	9 x 65	1
7725T-3	3	16 x 70	1
7725T-5	5	16 x 95	1
7725T-8	8	16 x 110	1
7725T-17	17	21 x 150	1
7725T-45	45	27 x 180	1

HOMOGENIZERS

7726 PYREX® Homogenizer, Ten Broeck

These 40 mL capacity homogenizers are designed for grinding small samples for pathological and biochemical work. The catch basin bulb has a 55 mm outer diameter. Made in accordance with Federal Specification DD-T-363a. It may be used manually but is adaptable for use with a slow speed stirrer by means of a rubber stopper and a connecting rod.

Cat. No.	Description	Size	Approx. Mortar Tube O.D. x Length (mm)	Approx. Pestle O.D. x Length (mm)	Ground Zone Length (mm)	Approx. Total Length (mm)	Qty/ Cs
7726-L	Complete	L	26 x 210	20 x 335	130	340	1

Caution: If used with a motor-driven device, the attachment must contain some form of friction release clutch to prevent damage to the apparatus. The user should wear a protective glove of sufficient thickness to prevent injury in the event of failure of the glass components.

7727 PYREX Homogenizer, Ten Broeck, Pour Spout

These grinders are designed for use in hand grinding small samples for pathological or biochemical studies. It may also be motor driven at low speed if some form of friction release is provided. The mortar tubes and pestles are ground to be interchangeable. Clearance between the two parts is approximately 0.15 mm. The medium grind provides the required abrasive action to deliver well homogenized samples. Made in accordance with Federal Specification NNN-T-360B.

Cat. No.	Description	Size (mL)	Approx. Mortar Tube O.D. x Length (mm)	Approx. Pestle O.D. x Length (mm)	Approx. Bulb O.D. (mm)	Ground Zone Length (mm)	Pestle Opening Stopper No.	Approx. Total Length (mm)	Qty/ Pk	Qty/ Cs
7727-2	Complete	2	16 x 100	10.5 x 165	20	60	0	170	1	4
7727-7	Complete	7	18 x 130	12.6 x 195	25	80	0	200	1	4
7727-15	Complete	15	21 x 150	15.8 x 235	35	90	1	240	1	4
7727-40	Complete	40	27 x 210	22.1 x 335	50	130	3	340	1	2

Caution: If used with a motor-driven device, the attachment must contain some form of friction release clutch to prevent damage to the apparatus. The user should wear a protective glove of sufficient thickness to prevent injury in the event of failure of the glass components.

TRAPS

7729 PYREX Trap, Vacuum, Separable, $ Joint

With a full length outer $ joint on the outer tube and an inner $ joint on the inner tube. The top and side tubulations are the same O.D. as the center tube and have a length of 75 mm.

Cat. No.	Description	Approx. O.D. x Length Below Joint (mm)	Approx. Outer O.D. x Length Below Joint (mm)	Inner $ Joint Size	Qty/ Pk	Qty/ Cs
7729-28	Complete	28 x 200	10 x 175	29/42	1	4
7729-32	Complete	32 x 225	13 x 200	34/45	1	4
7729-38	Complete	38 x 250	16 x 225	40/50	1	2
7729-41	Complete	42 x 250	20 x 225	45/50	1	2
7729-48	Complete	48 x 250	20 x 225	50/50	–	1
7729-51	Complete	52 x 250	20 x 225	55/50	1	2

TUBES

6980 PYREX® Tube, NMR, 5 mm Diameter

Precision NMR tubes made from quality PYREX borosilicate glass for compatibility with ground joints, valves, and vacuum racks. Made using precision bore tubing manufacturing techniques proven most reliable in NMR applications. Complete selection of tubes for all types of NMR spectrometers, from 60 to 600 MHz. All 5 mm NMR sample tubes have O.D. = 4.97 +0.000-0.013 mm I.D. of all except basic tubes are 4.20 +0.013-0.000 mm.

Cat. No.	Description	Length (inches)	For NMR MHz	Concentricity TIR* (inches)	Camber TIR* (inches)	Qty/ Pk	Qty/ Cs
6980B-7	Superior	7	300-500	0.0005	0.0005	–	5
6980B-8	Superior	8	300-500	0.0005	0.0006	–	5
6980C-7	Deluxe Plus	7	250-400	0.0010	0.0010	–	5
6980D-7	Deluxe	7	200-400	0.002	0.0005	–	5

*TIR = Total Indicator Reading

7815 PYREX Tube, Bleed, Capillary Tip

For bleeding gases, steam, or liquids below the liquid surface of sidearm distillation flasks.

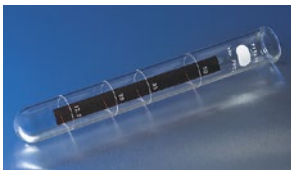
Cat. No.	Approx. O.D. x Length (mm)	Qty/Cs
7815-19	7 x 280	1

*This tube is also a replacement part for organic chemistry kits Cat. Nos. 6949E, 6949G, and 6949K.

7900 PYREX Tube, Digestion, Folin-Wu

Fabricated from specially selected tubing for product durability. Engraved white-filled graduations at 25 mL and 50 mL.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Length (mm)	Qty/Cs
7900-25	50.0	0.4	25 x 200	1



7952 PYREX Tube, Lifetime Red™, Taylor, Universal, Graduated

This tube is for general hospital laboratory work. It was designed by Dr. F.N.L. Taylor, Boston City Hospital, for determinations involving multiple calibrations and for carrying out digestions. Graduated at 12.5, 25, 35, and 50 mL, and supplied with a durable, white enamel marking spot.

Cat. No.	Approx. Capacity (mL)	Tol. (± mL)	Approx. O.D. x Length (mm)	Qty/Cs
7952-25	50.0	0.4	25 x 200	1

7995 PYREX Tube, Hybridization, Screw Cap, Graduated

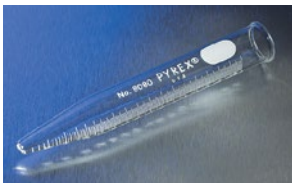
35 mm I.D. tubes available in three standard lengths for use in hybridization incubators with rotators. A more convenient method requiring smaller probe solution volumes. Comes with Corning® standard GL 45 orange plug-seal cap incorporating a silicone O-ring to ensure a leak-resistant seal. The optional Corning vented membrane cap is available for low temperature assays.

Cat. No.	Description	Approx. I.D. x Length (mm)	Qty/Cs
7995-150	Tube, Cap, O-ring	35 x 150	2
7995-300	Tube, Cap, O-ring	35 x 300	2
1395-OR	O-ring, Silicone	–	10
1395-45LTC	Cap for 7995 Tube	–	20

8060 PYREX® Tube, Centrifuge, Conical, Beaded Rim

Uniform glass distribution in the wall, taper and bottom provides improved mechanical strength, prevents the formation of failure-causing stress regions during centrifuging, and insures the highest degree of accuracy.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
8060-15	15.0	17 x 120	2	12
8060-50	50.0	28 x 135	2	12



8080 PYREX Tube, Centrifuge, Conical, Beaded Rim, Graduated

These tubes have white enamel graduations. The 10 mL and 15 mL sizes are graduated upward from tip in 0.1 mL increments. The 50 mL size is graduated upward from tip to 10 mL in 0.5 mL increments, and from 10 mL to 50 mL in 1 mL increments.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
8080-15	15.0	17 x 119	–	12
8080-50	50.0	28 x 135	6	12

8082 PYREX Tube, Centrifuge, Conical, Screw Cap, Graduated

These tubes have white enamel graduations. The 15 mL size is graduated upward from the tip in 0.1 mL increments. the 50 mL size is graduated upward from tip to 10 mL in 0.5 mL increments, and from 10 mL to 50 mL in 1 mL increments. The phenolic screw cap is fabricated of a resin which is specially formulated to resist the effects of temperature and steam. Caps have a glued-in, white rubber liner.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Cs
8082-15	15.0	17 x 134	15-415	12
8082-50	50.0	28 x 150	24-410	12

For phenolic caps, see Cat. No. 9999.

8084 PYREX Tube, Centrifuge, Conical, Pennyhead ⅋ Stopper, Graduated

These tubes have white enamel graduations. The 5 mL and 15 mL sizes are graduated upward from the tip in 0.1 mL increments. The 50 mL size is graduated upward from tip to 10 mL in 0.5 mL increments, and from 10 mL to 50 in 1 mL increments. The pennyhead stopper is solid.

Cat. No.	Approx. Capacity (mL)	⅋ Stopper No.	Approx. O.D. x Length (mm) (Exclusive of Stopper)	Qty/Pk	Qty/Cs
8084-5	5.0	9	13 x 120	1	12
8084-15	15.0	13	17 x 139	–	12
8084-50	50.0	16	28 x 151	1	12

For stopper only, see Cat. No. 7661.

8101 PYREX Tube, Centrifuge, Conical, Beaded Rim, Colored Graduations

These tubes have sharp, colored enamel graduations and markings. The tubes are the same size and shape as Cat. Nos. 8060 and 8080. They have precision formed tips and uniform walls throughout for a high degree of accuracy and mechanical strength.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8101-15	15.0	17 x 120	12
8101-50	50.0	28 x 135	1

8120 PYREX Tube, Centrifuge, Conical, Heavy Duty, Beaded Rim

Made to the same O.D. and length specifications as Cat. No. 8060, but of increased wall thickness for greater mechanical strength. In order to conform with outside diameter and overall length limitations imposed by shields, it has been necessary to reduce the capacity of all heavy duty tubes.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8120-12	12.0	17 x 120	12

8140 PYREX® Tube, Centrifuge, Conical, Heavy Duty, Beaded Rim, Graduated

Made of heavy wall construction, for greater mechanical strength, with durable, white enamel increments. The 12 mL size is graduated upward from tip in 0.1 mL increments. The 40 mL size is graduated in 0.5 mL increments to 10 mL, and from 10 mL to 40 mL in 1 mL increments.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
8140-12	12.0	17 x 120	–	12
8140-40	40.0	28 x 135	6	12

8142 PYREX Tube, Centrifuge, Conical, Heavy Duty, Screw Cap, Graduated

Constructed of heavy wall glass for greater mechanical strength. Graduations are with durable white enamel. The 10 mL size is graduated upward from tip in 0.1 mL increments. The 40 mL size is graduated in 0.5 mL increments to 10 mL, and from 10 mL to 40 in 1 mL increments. Tubes are fitted with a phenolic screw cap.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Cs
8142-10	10	17 x 118	15-415	1
8142-40	40	28 x 147	24-400	1

For phenolic cap, see Cat. No. 9999.

8160 PYREX Tube, Centrifuge, Oil, Graduated

In accordance with standard methods of testing for water and sediment in petroleum products. White graduations upward to 0.5 mL in increments of 0.05 mL; from 0.5 mL to 2 mL in increments of 0.1 mL; from 2 mL to 3 mL in increments of 0.2 mL; from 3 mL to 5 mL in increments of 0.5 mL; from 5 mL to 10 mL in increments of 1 mL; from 10 mL to 25 mL in increments of 5 mL and at 50, 75, and 100 mL.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8160-100	100.0	38 x 200	12

Reference: ASTM D-96, D-91, D-893, and D-1796.

8180 PYREX Tube, Lifetime Red™, Centrifuge, Oil, Graduated

In accordance with standard methods of testing for water and sediment in petroleum products. White graduations against a permanent red panel. Graduated upward to 0.5 mL in increments of 0.05 mL; from 0.5 mL to 2 mL in increments of 0.1 mL; from 2 mL to 3 mL in increments of 0.2 mL; from 3 mL to 5 mL in increments of 0.5 mL; from 5 mL to 10 mL in increments of 1 mL; from 10 mL to 25 mL in increments of 5 mL and at 50, 75, and 100 mL.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8180-100	100.0	38 x 200	12

Reference: ASTM D-96, D-91, D-893, and D-1796.

8190 PYREX Tube, Centrifuge, Oil, Graduated

In accordance with standard methods of testing for water and sediment in petroleum products. With white graduations as listed. Tube is calibrated “to contain,” and the subdivisions and capacity tolerances are indicated.

Cat. No.	Approx. Capacity (mL)	Range (mL)	Grad. Increment (mL)	Tol. (± mL)	Approx. O.D. x Length (mm)	Qty/ Pk	Qty/ Cs
8190-100	100.0	0.0-0.5	0.05	0.02	45 x 165	2	12

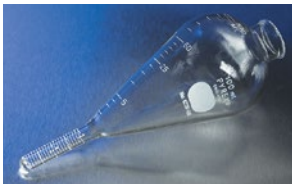
Reference: ASTM D-96.

8200 PYREX Tube, Centrifuge, Oil, Pear-shaped, Graduated

For determination of water and sediment in petroleum products. Fabricated from mold-blown blanks to insure uniform shape and greater mechanical strength. The stem has white graduations from 0 to 1.5 mL in 0.1 mL increments. The body is graduated from 1.5 mL to 5 mL in 0.5 mL increments; from 5 mL to 10 mL in 1 mL increments; and at 15, 20, 25, 50, and 100 mL.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8200-100	100.0	58 x 158	12

Reference: ASTM D-96 and D-1966.



8220 PYREX® Tube, Centrifuge, Goetz, Pear-shaped, Graduated

The lower stem is graduated upward to 1 mL in 0.05 mL increments. The body is graduated from 1 mL to 5 mL in 1 mL increments; from 5 mL to 50 mL in 5 mL increments; and from 50 mL to 100 mL in 10 mL increments.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8220-100	100.0	58 x 159	12

8240 PYREX Tube, Centrifuge, Round Bottom, Pourout

Round bottom tube with pourout spout for easy decanting.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
8240-50	50.0	29 x 116	–	12

8300 PYREX Tube, Centrifuge, Short Conical Bottom, Pourout, Graduated

The durable, white enamel scale is graduated from 0 to 10 mL in 0.5 mL increments, and from 10 mL to 50 mL in 1 mL increments.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8300-50	50.0	29 x 118	12

8320 PYREX Tube, Centrifuge, Heavy Duty, Short Conical Bottom, Pourout

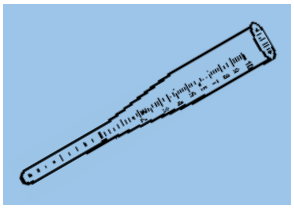
A heavy-walled, short conical bottom tube. With pourout spout for easy decanting.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8320-40	40.0	29 x 116	12

8340 PYREX Tube, Centrifuge, Heavy Duty, Short Conical Bottom, Pourout, Graduated

Heavy wall construction. Graduated to 10 mL in 0.5 mL increments, and from 10 to 40 mL in 1 mL increments. Graduations are in durable white enamel.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
8340-40	40.0	29 x 118	4	12



8360 PYREX Tube, Kolmer, Centrifuge, Graduated, Beaded Rim

These tubes are used in connection with the Wasserman test and to measure H_2O content and potassium ions in oil muds. API RP 13B standard testing method. Graduated in 0.1 mL increments up to 4 mL, and 0.2 mL increments from 4 to 10 mL. Graduations are durable white enamel.
Note: Tubes should not be spun in excess of 650 x g.

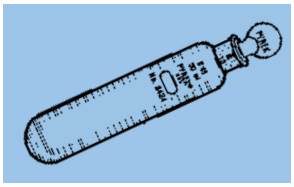
Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Cs
8360-10	10.0	17 x 125	12

8422 PYREX Tube, Centrifuge, Heavy Duty, Round Bottom, Screw Cap

These tubes are useful for the handling of sputum specimens. Digestion, shaking, neutralizing, and centrifuging can be performed in one container. They are also useful for other clinical and microbiological tests. Screw caps resist the effects of temperature and steam. The 50 mL tube has a black phenolic cap with a glued-in, white rubber liner. The 100 mL tube has a white polypropylene cap with a PTFE liner.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Cs
8422-50	50.0	29 x 122	24-410	12

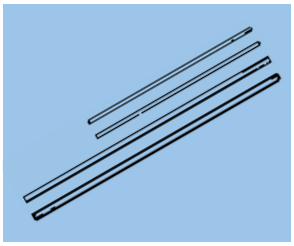
For phenolic cap for 50 mL tube, see Cat. No. 9999.



8424 PYREX® Tube, Centrifuge, Round Bottom, Pennyhead Stoppers

Round bottom, non-graduated centrifuge tube with ⚕ solid glass penny head stopper. Rockefeller Institute of Medical Research type.

Cat. No.	Description	Approx. Capacity (mL)	⚕ Stopper No.	Approx. O.D. x Length (mm)	Qty/Cs
8424-50	Complete	50.0	13	29 x 133	12



9530 PYREX Tube, Melting Point, Capillary

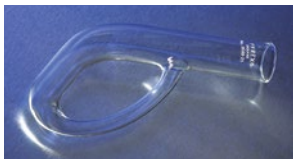
Made from Code 7740 borosilicate glass. The 100 and 90 mm sizes are available with both ends open or with one end open and one closed. All tubes have a 0.2 mm to 0.25 mm wall range.

Cat No.	Description	Approx. Length (mm)	Wall Range (mm)	Wall Tol. (± mm)	O.D. Range (mm)	I.D. Range (mm)	Qty/Pk	Qty/Cs
9530-1	Open Ends	100	0.20	0.02	1.5-1.8	–	20	2000
9530-2	Open Ends	100	0.25	0.03	–	0.8-1.1	20	2000
9530-3	1 Open/1 Closed End	90	0.20	0.02	1.5-1.8	–	20	2000
9530-4	1 Open/1 Closed End	90	0.25	0.03	–	0.8-1.1	20	2000

9540 PYREX Tube, Thiele, Melting Point

For melting point determination tests.

Cat. No.	Approx. O.D. x Length (mm)	Qt/Pk	Qty/Cs
9540-25	25 x 150	2	12



9560 PYREX Tube, Thiele-Dennis, Melting Point

Modified in design to increase the rate of circulation.

Cat. No.	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
9560-25	25 x 165	2	12

9610 PYREX Tube, Weathering Test, Graduated

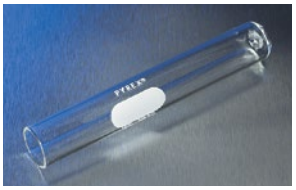
Graduated upward to 0.5 mL in increments of 0.05 mL, from 0.5 mL to 3 mL in 0.1 mL increments, from 3 mL to 5 mL in 0.5 mL increments and from 5 mL to 100 mL in 1 mL increments. Made with a 3 mm vent hole located 180° from the front of the tube. For testing propane, butane, and isobutane mixtures. Reference: *California Natural Gasoline Association*, Specifications TS-441-3, ASTM D-1837, D-2158.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Height (mm)	Qty/Cs
9610-100	100	37 x 200	1

9800 PYREX Tube, Test, Beaded Rim

These tubes are made from special tubing to give the optimum wall thickness. They are well annealed, resistant to heat, and chemically stable. Rims are fire-polished.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
9800-10	3	10 x 75	72	720
9800-12	5	12 x 75	72	720
9800-13	9	13 x 100	72	720
9800-15	14	15 x 125	72	720
9800-16	20	16 x 150	72	576
9800-18	27	18 x 150	72	576
9800-20	34	20 x 150	72	576
9800-25	50	25 x 150	72	288
9800-25X	70	25 x 200	48	192



9820 PYREX® Tube, Culture, Rimless

Rimless for greater convenience in plugging and rack storage. Walls and bottoms are of uniform thickness. Ends are fire-polished.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
9820-6	0.5	6 x 50	72	720
9820-10	3.0	10 x 75	72	720
9820-12*	5.0	12 x 75	72	720
9820-13**	9.0	13 x 100	72	720
9820-16	11.0	16 x 100	72	576
9820-16X	15.0	16 x 125	72	576
9820-16XX	20.0	16 x 150	72	576
9820-18	27.0	18 x 150	72	576
9820-20	34.0	20 x 150	72	576
9820-22	50.0	22 x 175	72	432
9820-25	50.0	25 x 150	72	288
9820-25X	70.0	25 x 200	48	192

*Kahn tubes.
**Wasserman tube.

9825 PYREX Tube, Culture, Screw Cap

Furnished with deep-form phenolic caps to facilitate handling and sealing after autoclaving. Caps are fabricated from a special formula resistant to the effects of temperature and steam in autoclaving. Caps are provided with a glued-in, white rubber liner. The white enamel marking spot gives an excellent surface for pencil notations. Pencil marks are easily erased.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
9825-13	9.0	13 x 100	13-415	144	288
9825-16	11.0	16 x 100	15-415	144	288
9825-16X	15.0	16x125	15-415	144	288
9825-16XX	20.0	16 x 150	15-415	144	288
9825-20	25.0	20 x 125	18-415	96	192
9825-20X	34.0	20 x 150	18-415	96	192
9825-22	50.0	22 x 175	18-415	48	192
9825-25	50.0	25 x 150	24-410	48	144
9825-25X	70.0	25 x 200	24-410	48	144
9825-38	170.0	38 x 200	38-430M	12	48

For phenolic caps, see Cat. No. 9999.

9826 PYREX Tube, Culture, Screw Cap with PTFE Liner

Similar to Cat. No. 9825, but phenolic cap has a PTFE interface firmly bonded to the glued-in rubber liner, providing a sure and highly inert sealing face.

Cat. No.	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
9826-13	9.0	13 x 100	13-415	144	288
9826-16	11.0	16 x 100	15-415	144	288
9826-16X	15.0	16 x 125	15-415	144	288
9826-16XX	20.0	16 x 150	15-415	144	288
9826-20	25.0	20 x 125	18-415	96	192
9826-20X	34.0	20 x 150	18-415	96	192
9826-25	50.0	25 x 150	24-410	48	144
9826-25X	70.0	25 x 200	24-410	48	144

For phenolic caps, see Cat. No. 9998.

9850 PYREX® Tube, Culture, Flat Bottom, Rimless

These new culture tubes with flat bottoms are ideal for plant tissue culture and general culture work. The flat bottom facilitates use with agar slants. Walls and bottoms are of uniform thickness. The tubes are rimless for greater convenience in plugging and rack storage. Optional polypropylene two position closure. Position closure open for gas exchange or closed for humidified environment. Internal drip ring minimizes contamination.

Cat. No.	Description	Approx. Capacity (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
26796-38	Closure*	–	38	50	100
26797-38	Closure	–	38	50	100
9850-25	Tube	39.0	25 x 100	36	72
9850-25X	Tube	47.0	25 x 120	36	72
9850-25XX	Tube	59.0	25 x 150	36	72
26794-25	Closure*	–	25	50	100
26795-25	Closure	–	25	50	100
26798-40	Closure	–	40	50	100
26799-40	Closure*	–	40	50	100

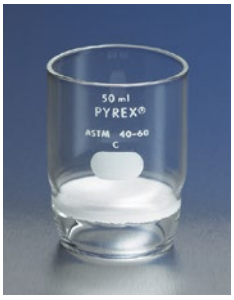
*Orange closure.

9860 PYREX Tube, Ignition, Heavy Wall, Rimless

These ignition tubes are made from Code 7740 borosilicate glass and are satisfactory for most applications encountered in school work where temperatures above 600°C are not required. These tubes perform well when continually used at temperatures up to 500°C, or for short periods to 600°C.

Cat. No.	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
9860-14	14 x 100	72	288
9860-16	16 x 125	72	288
9860-25	25 x 200	24	120

FRITTED WARE



32940 PYREX Fritted Disc, Gooch Type, High Form

Particularly adapted to analytical work where precipitates are dried to constant weight at 110°C. Also suitable for higher temperatures, in which case it is advisable to heat in an electric furnace. Crucibles should not be subject to sudden temperature changes. In order to avoid strain, they should not be removed from the furnace until the temperature has dropped to 250°C. For low form, see Cat. No. 32960.

Cat. No.	Approx. Capacity (mL) and Porosity	Approx. Disc O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
32940-30C	30C	30	35 x 60	–	12
32940-30M	30M	30	35 x 60	–	12
32940-30F	30F	30	35 x 60	3	12
32940-50C	50C	40	45 x 60	–	9
32940-50M	50M	40	45 x 60	–	9
32940-50F	50F	40	45 x 60	–	1

For filter tube only, see Cat. No. 9480.

32960 PYREX® Fritted Disc, Gooch Type, Low Form

Particularly adapted to analytical work where precipitates are dried to constant weight at 110°C. Also suitable for higher temperatures, in which case it is advisable to heat in an electric furnace. Crucibles should not be subjected to sudden temperature changes. In order to avoid strain, they should not be removed from the furnace until the temperature has dropped to 250°C. For high form, see Cat. No. 32940.

Cat. No.	Approx. Capacity (mL) and Porosity	Approx. Disc O.D. (mm)	Approx. O.D. x Height (mm)	Qty/Pk	Qty/Cs
32960-30C	30C	30	41 x 50	3	12
32960-30M	30M	30	41 x 50	–	12
32960-30F	30F	30	41 x 50	3	12

For filter tube only, see Cat. No. 9480.

33950 PYREX Fritted Thimble

Designed for use in PYREX brand extractors, where it is desirable to weigh the material extracted or where paper thimbles may be attacked by the chemicals used. For PYREX brand extractors and extraction apparatus, see Cat. Nos. 3740 through 3880.

Cat. No.	Approx. Body O.D. (mm)	Approx. Height (mm)	Qty/Pk	Qty/Cs
33950-SC	25	85	1	9
33950-MEC	35	90	–	1
33950-MC	35	90	1	6
33950-LEC	45	130	–	1
33950-LC	45	130	1	6

33970 PYREX 47 mm Microfiltration Glassware Apparatus

These microfiltration components are designed for the filtration of aqueous liquids. They may be used for the filtration of cell culture media, buffers, or for particulate analysis of water samples. Units have coarse porosity frits, and accommodate 47 mm filters. The components are interchangeable with competitive product offerings.

Cat. No.	Description	Funnel (mL)	Approx. O.D. x Height (mm)	Qty/Cs
33970-47	300 mL funnel, fritted glass support base, aluminum clamp, and No. 8 silicone stopper	300	75 x 230	1
Components				
33971-300	300 mL graduated funnel, 47 mm	300	75 x 115	1
33971-1L	1000 mL graduated funnel, 47 mm	1000	115 x 180	1
33972-B	47 mm fritted glass support base	–	58 x 125	1
33975-C	Aluminum clamp	–	–	1

33980 PYREX® 47 mm Microfiltration All-Glass Assembly

These filtration apparatus and components are designed for HPLC mobile phase filtration, analysis of particulate contamination and general laboratory microfiltration. Units have coarse porosity frits, and accommodate 47 mm filters. The all-glass design ensures chemical compatibility with most organic solvents. The components of this 47 mm glassware are interchangeable with competitive products.

Cat. No.	Description	Funnel (mL)	Approx. O.D. x Height (mm)	Qty/Cs
33980-300	Filtration assembly, 300 mL funnel, 1L flask, 47 mm fritted all-glass support base, aluminum clamp	300	140 x 430	1
33980-1L	Filtration assembly, 1000 mL funnel, 4L flask, 47 mm fritted all-glass support base, aluminum clamp	1000	210 x 600	1
Components				
33971-300	300 mL graduated funnel, 47 mm	300	75 x 115	1
33971-1L	1000 mL graduated funnel, 47 mm	1000	115 x 180	1
33982-B	47 mm fritted glass support base with tubulation	–	58 x 120	1
33985-1L	Flask, 1L, 40/35	–	–	1
33985-4L	Flask, 4L, 40/35	–	–	1
33975-C	Aluminum clamp	–	–	1

39533 PYREX Fritted Cylinder, Gas Dispersion

Tube is used to disperse or scrub gas in liquids. The size of gas bubbles depends upon the porosity of the fritted disc and the liquid used. The finer porosity discs give smaller bubbles. However, greater gas pressure is required. The 12 mm. O.D. fritted cylinder permits insertion through small openings.

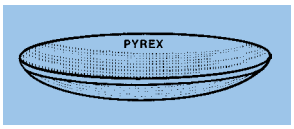
Cat. No.	Approx. Disc O.D. (mm) and Porosity	Approx. Length (mm)	Approx. Stem O.D. (mm)	Qty/Cs
39533-12C	12 C	250	8	6
39533-12EC	12 EC	250	8	6

39534 PYREX Fritted Disc, Gas Dispersion, Horizontal Type

Tube is used to disperse or scrub gas in liquids. The size of gas bubbles depends upon the porosity of the fritted disc and the liquid used. The finer porosity discs give smaller bubbles. However, greater gas pressure is required. Centrally located stem permits insertion through small openings.

Cat. No.	Approx. Disc O.D. (mm) and Porosity	Approx. Length (mm)	Approx. Stem O.D. (mm)	Qty/Cs
39534-30C	30 C	250	6	1
39534-30EC	30 EC	250	6	1

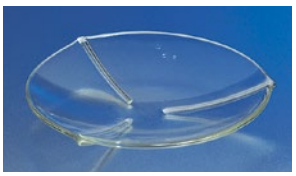
WATCH GLASS



9985 PYREX® Watch Glass

These watch glasses possess high chemical durability, thus preventing contamination of solutions. They are molded to the same radius of curvature for convenient stacking. The heavy wall and uniform fire-polished edge provide mechanical strength. The outside diameter cannot be controlled within close limits and a slight degree of out-of-round can be expected to occur.

Cat. No.	Approx. O.D. (mm)	Fits Beaker Size (mL)	Qty/Pk	Qty/Cs
9985-65	65	150	12	144
9985-75	75	250	12	144
9985-90	90	400	12	144
9985-100	100	600	12	144
9985-125	125	1000	12	72
9985-150	150	2000	12	72



9990 PYREX Watch Glass/Beaker Cover, Ribbed

Designed for use as a beaker cover. Ribs are molded into the glass so that they can't pop off as they do when cane is sealed to standard watch glasses. Permits reflux of digestate and escape of excess vapor. Eliminates risk of contamination from dropped hooks or props. Meets EPA requirements for methods 3005, 3010, and 3020.

Cat. No.	Description	Fits Beaker Size (mL)	Approx. O.D. (mm)	Qty/Cs
9990-75	Ribbed	250	75	12
9990-100	Ribbed	600	100	12
9990-125	Ribbed	1000	125	12

SPINNER FLASKS

4500, 4502 Glass Spinner Flasks, Angled Sidearms

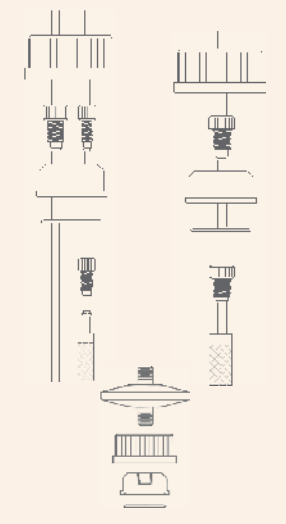
- Baffles enhance aeration and agitation of contents of the flask.
- Unique impeller design ensures optimal stirring.
- Sidearm designs permit easy access of 25 mL and 50 mL pipets.
- Visit www.corning.com/lifesciences to view additional Corning® spinner flask accessories

Cat. No.	Description	Capacity	Center Neck (mm)	Sidearm Neck (mm)	Qty/Cs
4500-125	Spinner	125 mL	70	32	1
4500-250	Spinner	250 mL	70	32	1
4500-500	Spinner	500 mL	100	45	1
4500-1L	Spinner	1L	100	45	1
4500-3L	Spinner	3L	100	45	1
4500-6L	Spinner	6L	100	45	1
4500-8L	Spinner	8L	100	45	1
4500-15L	Spinner	15L	100	45	1
4500-36L	Spinner	36L	100	45	1
4502-3L	Spinner	3L	120	45	1
4502-6L	Spinner	6L	120	45	1
4502-8L	Spinner	8L	120	45	1
4502-15L	Spinner	15L	120	45	1
4502-36L	Spinner	36L	120	45	1

Retrofit Kits are available for converting older Corning spinner flasks to fit newer dual-bearing impellers.

4510, 4512 Spinner Flasks, Vertical Sidearms

Cat. No.	Capacity	Center Neck (mm)	Number of Vertical Sidearms	Sidearm Neck (mm)	Qty/Cs
4510-8L	8L	100	4	45	1
4510-15L	15L	100	4	45	1
4510-36L	36L	100	6	45	1
4512-8L	8L	120	4	45	1
4512-15L	15L	120	4	45	1
4512-36L	36L	120	6	45	1



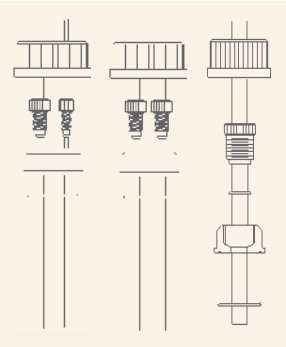
4519 Gas Handling Fittings, Vertical Sidearm Flasks

- Used to provide gases into larger spinner flasks with vertical sidearms
- Fittings are comprised of a PET insert with a fluorocarbon O-ring and a polypropylene sealing cap.
- Gas filters are PTFE, 0.2 µm porosity.
- The 316 stainless steel tubes are held in place by modified polyphenylene oxide thermoplastic nuts with integrated ferrules.
- The fittings are completely autoclavable.

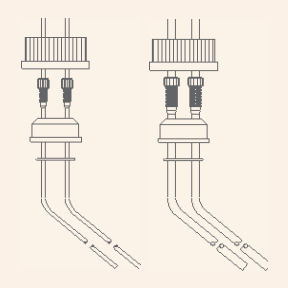
Cat. No.	Description	Dimensions	Qty/Cs
4519-100	Sidearm fitting, gas delivery	1/8" Inlet	1
4519-102	Sidearm fitting, gas delivery	1/4" Inlet	1
4519-104	Sidearm fitting, delivery and vent	1/8" and 1/4"	1
4519-106	Sidearm fitting, vent cap, 0.2 µm	50 mm filter	1
4519-177	Sidearm fitting, vent cap, 0.2 µm, sanitary	50 mm filter	1

4519 Media Handling Fittings, Vertical Sidearm Flasks

- Used to introduce medium aseptically into large spinner flasks with vertical sidearms
- Fittings are comprised of a PET insert with a fluorocarbon O-ring and a polypropylene sealing cap.
- Gas filters are PTFE, 0.2 µm porosity.
- The 316 stainless steel tubes are held in place by modified polyphenylene oxide thermoplastic nuts with integrated ferrules.
- The fittings are completely autoclavable.



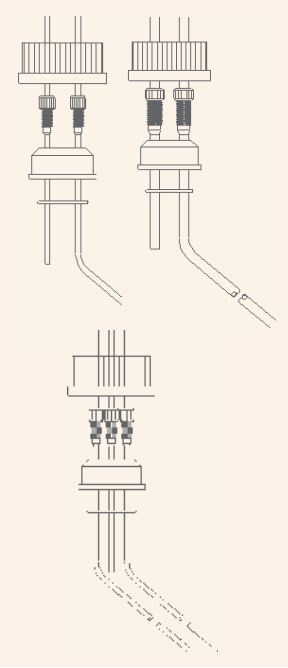
Cat. No.	Description	Fits Flask Size (L)	Tubing O.D. (inches)	Qty/Cs
4519-112	Sidearm fitting, dual, media handling	8, 15	1/8	1
4519-114	Sidearm fitting, dual, media handling	36	1/8	1
4519-116	Sidearm fitting, dual, media handling	8, 15	1/4	1
4519-118	Sidearm fitting, dual, media handling	36	1/4	1
4519-120	Sidearm fitting, combo, media handling	8, 15	1/8, 1/4	1
4519-122	Sidearm fitting, combo, media handling	36	1/8, 1/4	1
4519-124	Sidearm fitting, single, media handling	8, 15	1/2	1
4519-126	Sidearm fitting, single, media handling	36	1/2	1
4519-176	Sidearm fitting, dual, media handling, EPDM	8, 15	1/4	1



4519 Gas or Media Handling Fittings, Angled Sidearm Flasks, Dual Style

- Dual angled sidearm fittings can be used for aseptically transferring medium into or out of angled sidearm spinner flasks or for sparging the medium with gases.
- Fittings are comprised of a PET insert with a fluorocarbon O-ring and a polypropylene sealing cap.
- Two 316 stainless steel tubes, which extend to the bottom of the flask, are held in place by modified polyphenylene oxide thermoplastic nuts with integrated ferrules.
- The fittings are completely autoclavable.

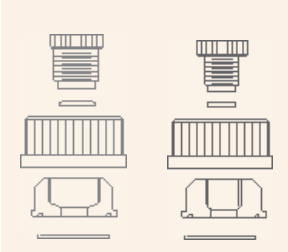
Cat. No.	Description	Flask Size	Tubing O.D. (inches)	Qty/Cs
4519-150	Sidearm fitting, dual	1L	1/8	1
4519-151	Sidearm fitting, dual	3L	1/8	1
4519-152	Sidearm fitting, dual	6L	1/8	1
4519-153	Sidearm fitting, dual	8L	1/8	1
4519-173	Sidearm fitting, dual	1L	1/8, 1/4	1
4519-121	Sidearm fitting, dual	8L	1/8, 1/4	1
4519-174	Sidearm fitting, dual	500 mL	1/8" angled to 125 mL level, 1/4"	1
4519-154	Sidearm fitting, dual	1L	1/4	1
4519-155	Sidearm fitting, dual	3L	1/4	1
4519-156	Sidearm fitting, dual	6L	1/4	1
4519-157	Sidearm fitting, dual	8L	1/4	1
4519-170	Sidearm fitting, dual	15L	1/4	1



4519 Gas or Media Handling Fittings, Angled Sidearm Flasks, Combination Style

- Used to aseptically transfer medium, sparge the cell culture medium directly or add gases to the head space above the cell culture medium.
- Fittings are comprised of a PET insert with a fluorocarbon O-ring and a polypropylene sealing cap.
- One or two 316 stainless steel tubes extend to the bottom of the flask; the other is a shorter 6" length.
- Both tubes are held in place by modified polyphenylene oxide thermoplastic nuts with integrated ferrules.
- The fittings are completely autoclavable.

Cat. No.	Description	Flask Size (L)	Tubing O.D. (inches)	Qty/Cs
4519-158	Sidearm fitting, combination	1	1/8	1
4519-159	Sidearm fitting, combination	3	1/8	1
4519-160	Sidearm fitting, combination	6	1/8	1
4519-161	Sidearm fitting, combination	8	1/8	1
4519-162	Sidearm fitting, combination	1	1/4	1
4519-163	Sidearm fitting, combination	3	1/4	1
4519-164	Sidearm fitting, combination	6	1/4	1
4519-165	Sidearm fitting, combination	8	1/4	1
4519-171	Sidearm fitting, combination	15	1/4	1
4519-166	Sidearm fitting, combination, triple	1	1/8	1
4519-167	Sidearm fitting, combination, triple	3	1/8	1
4519-168	Sidearm fitting, combination, triple	6	1/8	1
4519-169	Sidearm fitting, combination, triple	8	1/8	1



4519 Fittings for Insertion Probes, Vertical Sidearm Flasks

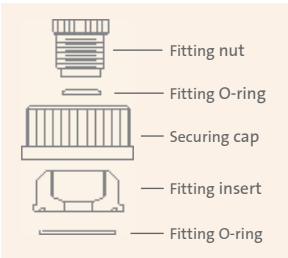
- Used to secure pH, O_2, or temperature sensors in large spinner flasks with vertical sidearms.
- Fittings are comprised of a PET insert with a fluorocarbon O-ring and a polypropylene sealing cap.
- The 316 sensors are held in place by modified polyphenylene oxide thermoplastic nuts with integrated ferrules.
- The fittings are completely autoclavable.

Cat. No.	Description	Sensor O.D. (mm)	Qty/Cs
4519-108	Sidearm fitting, sensor, O_2 probes	12	1
4519-128	Sidearm fitting, sensor, temperature probes	12	1
4519-110	Sidearm fitting, sensor, pH probes	12	1
4519-172	Sidearm fitting, sensor, pH or O_2	18	1

Impeller Assembly for Magnetically Driven Bioreactor

Stainless steel impeller shaft with modified impeller blade for use with probes to create a small bioreactor.

Cat. No.	Description	Qty/Cs
402648	Impeller assembly, stainless steel, dual bearing, modified for probes, 3L	1
401392	Impeller assembly, stainless steel, dual bearing, modified for probes, 8L	1
401661	Impeller assembly, stainless steel, dual bearing, modified for probes, 15L	1



Cap Assembly for Magnetically-Driven Bioreactor

Cap assembly for small bioreactor with various fitting arrangements

Cat. No.	Description	Qty/Cs
402579	Cap assembly, 120 mm, glass filled PBT, 3 (3/8"), 1 (1/4") fittings	1
402576	Cap assembly, 120 mm, glass filled PBT, 2 (12 mm), 2 (1/4") fittings	1
402577	Cap assembly, 120 mm, glass filled PBT, 2 (12 mm), 2 (1/4"), 1 (3/8") fittings	1

1395 Spare Parts for Sidearm Fittings

Cat. No.	Description	Qty/Cs
1395-32LTC	Securing cap, solid, 32 mm, orange	1
1395-45LTC	Securing cap, solid, 45 mm, orange	1
1395-45LTR	Drip ring, 45 mm, clear	1
1395-45LTMC	Securing cap, vented, 45 mm, .22 PTFE, grey	10

Direct Drive Motors

- High torque, low rpm stirrer is designed to maintain constant low speed.
- Gearhead stirrer delivers 14.5 in-lbs of torque.
- Maximum speed is 350 rpm.
- Weight of motor is 9 lbs. (4.1 kg)
- Available with 120VAC 60 Hz or 230VAC 50Hz

Cat. No.	Description	Qty/Cs
400640	120VAC, 60 Hz motor	1
402645	230VAC, 50 Hz motor	1

Direct Drive Shaft/Cap Assemblies

- For 8L, 15L, or 36L paddle assemblies
- Used on all series 4510 and 4512 Spinner flasks

Cat. No.	Description	Qty/Cs
402614	For 100 mm neck flasks	1
400649	For 120 mm neck flasks	1

4515 Direct Drive Paddle Assemblies

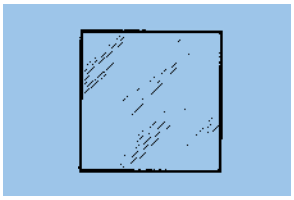
- For series 4510, 4512 spinner flasks when coupled to a direct drive motor
- Paddle assemblies will couple to 100 mm and 120 mm cap assemblies.

Cat. No.	Description	Qty/Cs
4515-8L	Paddle assembly only for 8L flask	1
4515-15L	Paddle assembly only for 15L flask	1
4515-36L	Paddle assembly only for 36L flask	1

Disposable Glassware

COVER GLASS

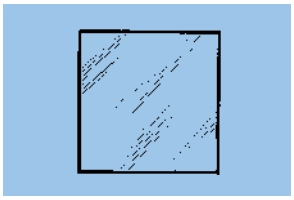
Corning's special, optically clear, water-white, borosilicate cover glass is resistant to surface attach or weathering and will remain clear for extended periods of time. Packed one ounce per pack and 10 packs per case.



2845 Corning® Cover Glass, No. 1, Square

The thickness of No. 1 squares is 0.12 mm to 0.16 mm.

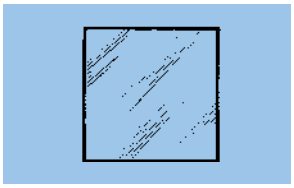
Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
2845-18	18 x 18	200	2000
2845-22	22 x 22	200	2000
2845-25	25 x 25	200	2000



2850 Corning Cover Glass, No. 1½, Square

The thickness of No. 1½ squares is 0.16 mm to 0.19 mm.

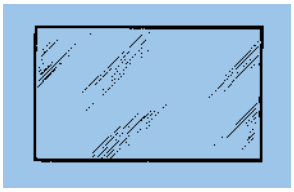
Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
2850-18	18 x 18	200	2000
2850-22	22 x 22	200	2000
2850-25	25 x 25	200	2000



2855 Corning Cover Glass, No. 2, Square

The thickness of No. 2 squares is 0.19 to 0.25 mm.

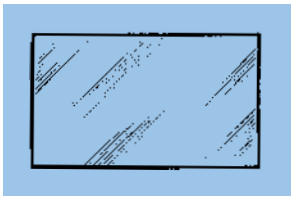
Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
2855-18	18 x 18	100	1000
2855-22	22 x 22	100	1000
2855-25	25 x 25	100	1000



2975 Corning Cover Glass, No. 1, Rectangle

The thickness of No. 1 rectangles is 0.12 mm to 0.16 mm.

Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
2975-223	22 x 30	100	1000
2975-224	22 x 40	100	1000
2975-225	22 x 50	100	1000
2975-243	24 x 30	100	1000
2975-244	24 x 40	100	1000
2975-245	24 x 50	100	1000
2975-246	24 x 60	100	1000

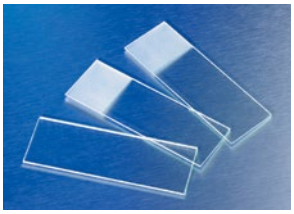


2980 Corning Cover Glass, No. 1½, Rectangle

The thickness of No. 1½ rectangles is 0.16 mm to 0.19 mm.

Cat. No.	Approx. Size (mm)	Qty/Pk	Qty/Cs
2980-223	22 x 30	100	1000
2980-224	22 x 40	100	1000
2980-225	22 x 50	100	1000
2980-243	24 x 30	100	1000
2980-244	24 x 40	100	1000
2980-245	24 x 50	100	1000
2980-246	24 x 60	100	1000

MICROSCOPE SLIDES



2947 Corning® Microscope Slide, Plain

Cat. No.	Approx. Size (mm)	Thickness (mm)	Qty/Pk	Qty/Cs
2947-75x25	75 x 25	0.90-1.10	1/2 GR	10 gross
2947-75x38	75 x 38	0.90-1.10	1/2 GR	5 gross
2947-75x50	75 x 50	0.90-1.10	1/2 GR	5 gross

1 gross (GR) = 144 slides

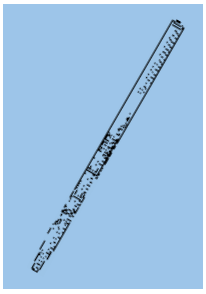
2948 Corning Microscope Slide, Frosted One Side, One End

Cat. No.	Approx. Size (mm)	Thickness (mm)	Qty/Pk	Qty/Cs
2948-75x25	75 x 25	0.90-1.10	1/2 GR	10 GR

2949 Corning Microscope Slide, Frosted Two Sides, One End

Cat. No.	Approx. Size (mm)	Thickness (mm)	Qty/Pk	Qty/Cs
2949-75x25	75 x 25	0.90-1.10	1/2 GR	10 GR

PIPETS



7058 PYREX® Pipet, Disposable Glass, Bacteriological Multi-pack, Sterile, Plugged, Graduated

These pipets meet the requirements recommended by the American Public Health Association as shown in "Standard Methods for the Examination of Dairy Products." This pipet is very convenient when duplicate platings are to be made on the same medium or for plating differential medium for the determination of gram-negative bacteria, mold and yeast, or total plate count. Both sizes are designed for gravity feed (blow-out is not required). These cotton-plugged pipets are packaged in sterile bags. This allows the use of several pipets at a time without contamination of the entire case. New ISO color-coding is printed directly on the tear strip for easy identification by size.

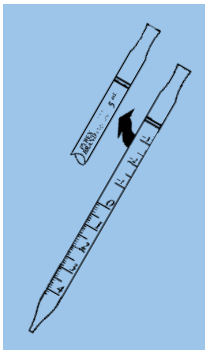
Cat. No.	Approx. Capacity (mL)	Qty/Bag	Bags/Pk	Pk/Cs	Qty/Cs
7058-2X	2.2	25	10	2	500

7077 PYREX Pipet, Disposable Glass, Serological, Individually Wrapped, Sterile, Plugged, To Deliver

These pipets, calibrated "to deliver" with blow-out, offer long, slender, tapered tips to make pipetting go faster and easier. All pipets have negative graduations and fire-polished tips for burr-free, even flow rates. Easy-open Steri-View™ wrappers (one side paper, one side plastic) have color-coded sizes printed directly on the paper for easy identification by size. Colors conform to ISO standards. Reference: ASTM E-714.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Total Length (mm)	Qty/Pk	Pk/Cs	Qty/Cs
7077-1N	1.0	0.2	.01	274	200	4	800
7077-2N	2.0	0.2	.01	274	180	4	720
7077-5N	5.0	1.0	.1	300	120	6	720
7077-10N	10.0	2.0	.1	300	120	6	720

Do not pipet by mouth. We suggest using a mechanical pipetting device.



7077B PYREX® Pipet, Disposable Glass, Serological, Shorty, Individually Wrapped, Sterile, Plugged, To Deliver

These shorty pipets, calibrated "to deliver" with blow-out, are ideal for use in confined areas. The 5 mL, 10 mL, and 25 mL sizes have tooled tops. Negative graduations on each pipet make it applicable for both serological and measuring procedures. ISO color coding is printed directly on the Steri-View™ wrapper.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Total Length (mm)	Qty/Pk	Pk/Cs	Qty/Cs
7077B-1	1.0	0.5	.01	220	250	2	500
7077B-5	5.0	3.0	.1	221	200	2	400
7077B-10	10.0	2.0	.2	224	200	2	400
7077B-25	25.0	5.0	.2	271	100	3	300
7077B-50*	50.0	3.0	.5	345	25	2	50

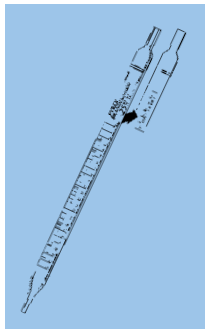
Do not pipet by mouth. We suggest using a mechanical pipetting device.
*50 mL size features negative and reverse graduations.

7078 PYREX Pipet, Disposable Glass, Serological, Multi-Pack, Sterile, Plugged, To Deliver

Designed for the larger-volume user, these pipets are calibrated "to deliver" with blow-out, and are packed to permit easy access to several pipets at a time without contaminating the entire case. Similar to Cat. No. 7077, except multi-packed in plastic bags. New ISO color-coding is printed directly on the tear strip for easy identification by size. Reference: ASTM E-714.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Total Length (mm)	Qty/ Bag	Bags/ Pk	Pk/ Cs	Qty/ Cs
7078-1N	1.0	0.2	.1	274	50	5	4	1000
7078-1CN	1.0	0.2	.01	274	50	5	4	1000
7078-2N	2.0	0.2	.01	274	35	5	4	700
7078-5N	5.0	1.0	.1	300	30	8	4	960
7078-10N	10.0	2.0	.1	300	20	6	6	720

Do not pipet by mouth. We suggest using a mechanical pipetting device.

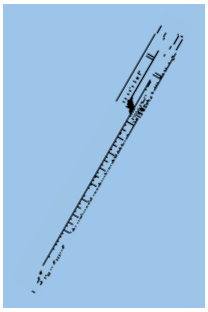


7078B PYREX Pipet, Disposable Glass, Serological, Shorty, Multi-Pack, Sterile, Plugged, To Deliver

These shorty pipets, calibrated "to deliver" with blow-out, are ideal for use in confined areas. The 5, 10, and 25 mL sizes have tooled tops. Negative graduations on each pipet make it applicable for both serological and measuring procedures. Packaged in plastic bags so several can be removed without contaminating the entire pack. ISO color-coding is printed directly on the tear strip.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Total Length (mm)	Qty/ Bag	Bags/ Pk	Pk/ Cs	Qty/ Cs
7078B-1	1.0	0.5	.01	220	10	25	2	500
7078B-5	5.0	3.0	.1	221	10	20	2	400
7078B-10	10.0	2.0	.2	224	10	20	2	400
7078B-25	25.0	5.0	.2	271	5	20	4	400
7078B-50*	50.0	3.0	.5	345	5	–	25	50

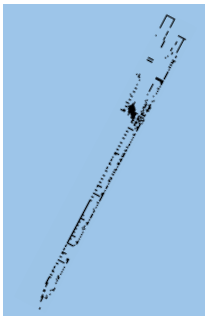
Do not pipet by mouth. We suggest using a mechanical pipetting device.
*50 mL size features negative and reverse graduations.



7078D PYREX® Pipet, Disposable Glass, Serological, Flip-Top Canister Pack, Sterile, Plugged, To Deliver

These pipets are calibrated "to deliver" with blow-out. They are packed in a flip-top canister to keep the pipets racked. These pipet canisters come sealed in polyethylene bags for sterility. ISO color-coding is printed directly on the tear strip for easy identification by size. Reference: ASTM E-714.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Qty/Canister	Pk/Cs	Qty/Cs
7078D-1	1.0	0.2	.01	50	10	500
7078D-5	5.0	1.0	.1	25	16	400
7078D-10	10.0	2.0	.1	25	16	400



7079 PYREX Pipet, Disposable Glass, Serological, Bulk Pack, Nonsterile, Unplugged, To Deliver

These disposable glass pipets are calibrated "to deliver" with blow-out and offer long, slender, tapered tips to make pipetting go faster and easier. All pipets have negative graduations and fire-polished tips for burr-free, even flow rates. Nonsterile, unplugged, and bulk packed. Reference: ASTM E-714.

Cat. No.	Approx. Capacity (mL)	Negative Grad. (mL)	Grad. Increment (mL)	Qty/Bag	Bags/Pk	Pk/Cs	Qty/Cs
7079-1N	1.0	0.2	.01	50	5	4	1000
7079-2N	2.0	0.2	.01	700	–	1	700
7079-5N	5.0	1.0	.1	30	8	4	960
7079-10N	10.0	2.0	.1	20	6	6	720

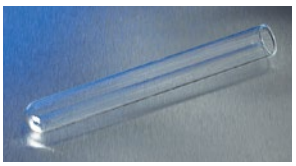
7095B and 7095D Corning® Pipet, Bulk Pack, Nonsterile, Unplugged

Corning disposable glass Pasteur pipets are available in convenient Packages. One-time use eliminates the danger of cross-contamination of valuable specimens or laboratory reagents. These pipets feature a constriction one inch below the top to facilitate plugging. They are ideal for rapid non-volumetric transfer work in bacteriology, immunology, hematology, and serology studies, as well as blood bank and clinical chemistry procedures.

Cat. No.	Size (Inches)	Qty/Pk	Qty/Cs
7095B-5X	5.75	5	1000
7095B-9	9	5	1000
7095B-NMR	Long Tip	–	100
7095D-5X	5.75	5	1000
7095D-9	9	5	1000

"B" series pipets are soda lime glass. "D" series are borosilicate glass.

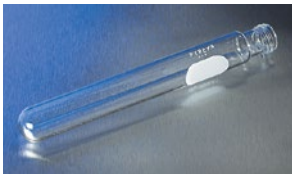
TUBES, CULTURE



99445 PYREX Tube, Culture, Disposable, Rimless, Dispenser Pack, and Bulk Pack

These one-use culture tubes are packaged for your convenience in easy-to-open, easy-to-use packs. The three small sizes come in a dispenser arrangement, and the larger sizes are bulk-packed. Made of borosilicate glass to reduce pH changes and contaminants potentially leached from soda-lime glass.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
99445-10	4.0	10 x 75	250	1000
99445-12	6.0	12 x 75	250	1000
99445-13	10.0	13 x 100	250	1000
99445-15	11.0	15 x 85	250	1000
99445-16	15.0	16 x 100	250	1000
99445-16X	15.0	16 x 125	250	1000
99445-16XX	23.0	16 x 150	250	1000
99445-18	28.5	18 x 150	250	500
99445-20	36.0	20 x 150	250	500



99447 PYREX® Tube, Culture, Disposable, Round Bottom, White Marking Spot, Screw Cap Style, Bulk Pack

Designed for both tissue culture and general bacteriological work. Tubes are made of borosilicate glass and are sold without caps.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
99447-13	7.5	13 x 100	13-415	250	1000
99447-16	15.5	16 x 125	15-415	250	1000
99447-16X	19.0	16 x 150	15-415	250	1000
99447-161	11.5	16 x 100	15-415	250	1000
99447-20	24.0	20 x 125	18-415	250	500
99447-20X	30.0	20 x 150	18-415	250	500

For caps, see Cat. No. 99999.

99448 PYREX Tube, Culture, Disposable, Flat Bottom, Screw Cap Style, Bulk Pack

Tube has flat bottom and comes without marking spot. Tubes are made of borosilicate glass and are sold without caps.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
99448-16	17.0	16 x 125	15-415	250	1000
99448-16X	11.5	16 x 100	15-415	250	1000
99448-19	29.5	19.5 x 145	18-415	250	500

For caps, see Cat. No. 99999.

99449 PYREX Tube, Culture, Disposable, Round Bottom, Screw Cap Style, Bulk Pack

A round bottom tube without marking spot. Tubes are made of borosilicate glass and are sold without caps.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	G.P.I. Thread Finish	Qty/Pk	Qty/Cs
99449-13	7.5	13 x 100	13-415	250	1000
99449-16	11.5	16 x 100	15-415	250	1000
99449-16X	15.0	16 x 125	15-415	250	1000
99449-16XX	19.0	16 x 150	15-415	250	1000
99449-20	24.0	20 x 125	18-415	250	500
99449-20X	30.0	20 x 150	18-415	250	500

For caps, see Cat. No. 99999.

TUBES, CENTRIFUGE

These tubes feature more consistent uniform wall thickness, a well formed conical tapered tip, and durable tip radius. The tubes are designed to withstand centrifugation up to 3000 RCF.

99502 PYREX® Tube, Centrifuge, Disposable Glass, Ungraduated, Screw Cap Closure

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	Thread Finish	Cap Style	Screw Cap	Qty/Cs
99502-5	5	13 x 110	13-415	Screw	9998-13, 99999-13	125
99502-10	10	16 x 114	15-415	Screw	9998-15, 99999-15	125
99502-15	15	17 x 126	15-415	Screw	9998-15, 99999-15	125
99502-50	50	29 x 137	24-400	Screw	9999-24	72

Screw caps are sold separately. Product is supplied nonsterile.

CAPS

99999 Corning® Cap, Phenolic, Disposable, Bulk Pack

Made of a phenolic compound. These caps have a white rubber liner.

Cat. No.	G.P.I. Thread Finish	Approx. Outside Height	Qty/Cs
99999-13	13-415	13.5	1000
99999-15	15-415	16.0	1000
99999-18	18-415	17.5	1000

PYREX® VISTA™ Glassware

70000 PYREX VISTA Beaker, Standard Low Griffin

These beakers with spout are manufactured to provide balance between thermal shock resistance and mechanical strength. For convenience, the 250 through 1000 mL beakers have a double graduated metric scale to indicate approximate content. All sizes have blue graduations and an extra large blue marking spot. The 10 mL size is not graduated. The beakers are designed to ASTM E-960.

Cat. No.	Approx. Capacity (mL)	Qty/Pk	Qty/Cs
70000-10	10	12	24
70000-20	20	12	24
70000-30	30	12	24
70000-50	50	12	24
70000-100	100	12	24
70000-150	150	12	24
70000-250	250	12	24
70000-400	400	12	24
70000-600	600	6	12
70000-1L	1000	6	12

70022 PYREX VISTA Cylinder, Single Metric Scale, Class A, To Contain

These Class A graduated cylinders are calibrated “to contain” and have blue enamel graduations. The cylinder capacity is in accordance with ASTM E-1272. The 10 mL size has a funnel top. For bumper guard only, see Cat. No. 3066.

Cat. No.	Capacity (mL)	Qty/Pk	Qty/Cs
70022-10	10	1	24
70022-25	25	1	18
70022-50	50	1	18
70022-100	100	1	12
70022-250	250	1	12
70022-500	500	1	8

70024 PYREX VISTA Cylinder, Single Metric Scale, Class A, To Deliver

These Class A graduated cylinders are calibrated “to deliver” and have blue enamel graduations. The cylinder capacity is in accordance with ASTM E-1272. The 10 mL size has a funnel top for easier filling.

Cat. No.	Capacity (mL)	Qty/Pk	Qty/Cs
70024-10	10	1	24
70024-25	25	1	18
70024-50	50	1	18
70024-100	100	1	12
70024-250	250	1	12
70024-500	500	1	8

70075 PYREX® VISTA™ Cylinder, Plastic Base with Blue Graduations, To Contain, Economy

These cylinders are calibrated "to contain". They are supplied in two parts – a strong, accurate glass graduate and a detachable, sturdy plastic base which absorbs impacts and reduces breakage. Tolerances are ±5% of total at any point. By removing the base, the graduate can be conveniently stacked. Bumper guards are supplied with 25 mL through 100 mL inclusive. The 10 mL has a funnel top for careful pouring.

Cat. No.	Capacity (mL)	Qty/Pk	Qty/Cs
70075-10	10	12	12
70075-25	25	12	12
70075-50	50	12	12
70075-100	100	12	12

70100 PYREX VISTA Flask, Boiling, Flat Bottom, Short Neck

These flat bottom boiling flasks have full length outer 24/40 ⅀ joints, but with shorter necks. Wall thicknesses are controlled to provide balance between thermal expansion and mechanical strength for greater shock resistance. The flat bottom boiling flasks are designed to ASTM E-1403. Adapter Cat. Nos. 8800, 8820, and 8825 are used to connect flasks with different size joints, thus allowing numerous combinations for diverse assemblies.

Cat. No.	Approx. Capacity (mL)	⅀ Joint Size	Qty/Pk	Qty/Cs
70100-125	125	24/40	12	12
70100-250	250	24/40	6	12
70100-500	500	24/40	6	12
70100-1L	1000	24/40	1	2

70165 Corning® Dish, Culture, Petri, Soda Lime

These flat, clear dishes are made from soda lime silica glass and will withstand repeated sterilization (wet or dry). The edges are beaded to provide greater mechanical strength. The bead also provides a means to equally space the side walls of the bottom and cover, thereby reducing the capillary action of the condensed moisture on the sides. They are not affected chemically or thermally by any of the methods commonly employed in laboratories where sterilization is routinely used. The covered dish is not airtight. Bottoms also have a triangular enamel reference point for serial dilutions.

Cat. No.	Size (mm)	Qty/Pk	Qty/Cs
70165-60	60 x 15	12	24
70165-100	100 x 10	12	24
70165-101	100 x 15	12	24
70165-102	100 x 20	12	24
70165-152	150 x 20	12	24

70320 PYREX VISTA Flask, Boiling, Round Bottom, Short Neck

These round bottom boiling flasks have full length outer ⅀ joints, but with shorter necks. They are manufactured from Code 7740 borosilicate glass. Wall thicknesses are controlled to provide balance between thermal expansion and mechanical strength for greater shock resistance. The round bottom boiling flasks are designed to ASTM E-1403. Adapter Cat. Nos. 8800, 8820, and 8825 are used to connect flasks with different size joints, thus allowing numerous combinations for diverse assemblies.

Cat. No.	Approx. Capacity (mL)	⅀ Joint Size	Qty/Pk	Qty/Cs
70320A-50	50	24/40	2	4
70320-100	100	24/40	2	4
70320-250	250	24/40	2	4
70320-500	500	24/40	2	4
70320-1L	1000	24/40	1	2
70320-2L	2000	24/40	1	2

70980 PYREX® VISTA™ Flask, Narrow Mouth, Erlenmeyer

These narrow mouth Erlenmeyer flasks have uniform wall thickness which provide the proper balance between mechanical strength and thermal shock resistance. Approximate graduations are in durable blue enamel. An extra large blue marking space is also provided. The Erlenmeyer flasks are designed to ASTM E-1404 Type 1.

Cat. No.	Approx. Capacity (mL)	Qty/Pk	Qty/Cs
70980-25	25	12	24
70980-50	50	12	24
70980-125	125	12	24
70980-250	250	12	24
70980-500	500	6	12
70980-1L	1000	6	12

70340 PYREX VISTA Flask, Filtering

These filtering flasks have sidearm tubulations and have blue gradations to show approximate capacity. The neck finish affords a fit for rubber stoppers. Tubulation O.D. on sizes up to 1000 mL is approximately 10 mm. The filtering flasks are designed to ASTM E-1406 Type 2.

Cat. No.	Approx. Capacity (mL)	Qty/Pk	Qty/Cs
70340-250	250	6	12
70340-500	500	6	12
70340-1L	1000	6	12

70360 PYREX VISTA Flask, Micro Filtering, with Tubulation

These small filtering flasks are recommended for microchemical use. All flasks have permanent blue enamel marking spots. The filtering flasks are designed to ASTM E-1406 Type 2.

Cat. No.	Approx. Capacity (mL)	Qty/Pk	Qty/Cs
70360-25	25	6	12
70360-50	50	6	12
70360-125	125	6	12

70640 PYREX VISTA Flask, Volumetric, Class A, Glass ⅌ Stopper

These volumetric flasks provide precise volume measurement. The necks are tooled for ⅌ glass stoppers. The graduation line is sharp and permanent and large blue block letters make the inscription easy to read. These Class A volumetric flasks have been manufactured to Class A tolerances as established by ASTM E-694 for volumetric ware, ASTM E-542 for calibration of volumetric ware and ASTM E-288 for volumetric flasks.

Cat. No.	Capacity (mL)	Stopper	Qty/Pk	Qty/Cs
70640-10	10	9	12	12
70640-25	25	9	6	12
70640-50	50	9	6	12
70640-100	100	13	6	12
70640-200	200	13	6	12
70640-250	250	16	6	12
70640-500	500	19	6	12
70640-1L	1000	22	1	2
70640-2L	2000	27	1	2

70581 PYREX® VISTA™ Flask, Volumetric, Class B, Polyethylene Snap Cap

These Class B volumetric flasks have capacity tolerances are twice those specified for Class A volumetric ware. The graduation line is sharp and permanent; large blue block letters make inscriptions easy to read. Snap caps are supplied with all sizes.

Cat. No.	Capacity (mL)	Qty/Pk	Qty/Cs
70581-10	10	6	12
70581-25	25	6	12
70581-50	50	6	12
70581-100	100	6	12
70581-250	250	6	12
70581-500	500	6	12
70581-1L	1000	1	6
70581-2L	2000	1	4

70710 PYREX VISTA Pipet, Volumetric, Class A, Reusable

These volumetric pipets are manufactured to Class A capacity tolerances as indicated by ASTM E-969. Sizes 1 mL through 10 mL are color-coded.

Cat. No.	Approx. Capacity (mL)	Color Code	Qty/Pk	Qty/Cs
70710-1	1	Blue	12	12
70710-2	2	Orange	12	12
70710-5	5	White	12	12
70710-10	10	Red	12	12

70800 PYREX VISTA Tube, Test, Beaded Rim

These test tubes are annealed, resistant to heat and chemically stable. Rims are fire-polished.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
70800-10	3	10 x 75 mm	50	200
70800-12	5	12 x 75 mm	50	200
70800-13	9	13 x 100 mm	50	200
70800-15	14	15 x 125 mm	50	200
70800-16	20	16 x 150 mm	50	200
70800-18	27	18 x 150 mm	50	200
70800-20	34	20 x 150 mm	50	200
70800-25	50	25 x 150 mm	50	200
70800-25X	70	25 x 200 mm	50	200

70820 PYREX® VISTA™ Tube, Rimless Culture

These reusable rimless culture tubes offer greater convenience in plugging and rack storage. Ends are fire-polished.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
70820-6	0.5	6 x 50 mm	50	200
70820-10	3	10 x 75 mm	50	200
70820-12	5	12 x 75 mm	50	200
70820-13	9	13 x 100 mm	50	200
70820-16	11	16 x 100 mm	50	200
70820-16X	15	16 x 125 mm	50	200
70820-16XX	20	16 x 150 mm	50	200
70820-18	27	18 x 150 mm	50	200
70820-20	34	20 x 150 mm	50	200
70820-22	50	22 x 175 mm	50	200
70820-25	55	25 x 150 mm	50	200
70820-25X	70	25 x 200 mm	50	200

70825 PYREX VISTA Tube, Culture, Screw Cap, Phenolic Cap

These culture tubes are supplied with deep-form phenolic caps with a rubber liner to facilitate handling and sealing after autoclaving. The blue enamel marking spot gives an excellent surface for pencil notations. Pencil marks are easily erased. For replacement phenolic caps, see Cat. No. 9999.

Cat. No.	Approx. Volume (mL)	Approx. O.D. x Length (mm)	Qty/Pk	Qty/Cs
70825-13	9	13 x 100	50	200
70825-16	11	16 x 100	50	200
70825-16X	15	16 x 125	50	200
70825-16XX	20	16 x 150	50	200
70825-20	25	20 x 125	50	200
70825-20X	34	20 x 150	50	200
70825-25	55	25 x 150	50	200

Reusable Plasticware

1000P Corning® Low Form Beakers, PP

Translucent polypropylene beakers printed with blue graduations.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Cs
1000P-25	25	5	32 x 47	24
1000P-50	50	10	41 x 60	12
1000P-100	100	20	50 x 71	12
1000P-150	150	20	56 x 80	12
1000P-250	250	50	67 x 94	6
1000P-400	400	100	77 x 109	6
1000P-600	600	100	89 x 125	6
1000P-1L	1000	100	106 x 148	6
1000P-2L	2000	200	132 x 185	6
1000P-3L	3000	500	156 x 210	4
1000P-5L	5000	500	181 x 247	4

1003P Corning Low Form Beakers, PFA

These beakers are translucent with a raised graduation scale. They feature high temperature and chemical resistance.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Cs
1003P-25	25	5	32 x 50	12
1003P-50	50	10	39 x 59	12
1003P-100	100	20	51 x 72	12
1003P-250	250	50	67 x 95	6
1003P-500	500	100	82 x 120	6
1003P-1L	1000	100	104 x 140	6

1015P Corning Graduated Beakers with Handle and Spout, PP

Translucent polypropylene beakers printed with blue graduations.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Cs
1015P-250	250	5	77 x 115	12
1015P-500	500	10	95 x 136	12
1015P-1L	1000	10	125 x 167	12
1015P-2L	2000	20	152 x 217	8
1015P-3L	3000	50	170 x 243	6

1300P Corning® Wash Bottles, LDPE/PP Caps

These bottles are manufactured from low density polyethylene and are offered with a narrow or wide-mouth. The cap and dispensing tube are manufactured from PP to optimize backflow of the solution. The design allows minimal turbulence of the liquid in the bottle.

Cat. No.	Approx. Capacity (mL)	Thread Finish	Approx. Height (mm)	Approx. Diam. (mm)	Qty/Cs
1300P-250	250	GL 25	135	58	12
1300P-250W	250	GL 45	146	58	12
1300P-500	500	GL 25	180	74	12
1300P-500W	500	GL 45	166	76	12
1300P-1L	1000	GL 32	221	92	12
1300P-1LW	1000	GL 63	226	91	12

1500P Corning Reagent Bottles, PP

These bottles are manufactured from translucent polypropylene. They are wide-mouth and supplied with PP screw top caps.

Cat. No.	Approx. Capacity (mL)	Thread Finish	Approx. Height (mm)	Approx. Diam. (mm)	Qty/Cs
1500P-250	250	GL 45	132	73	20
1500P-500	500	GL 45	172	87	10
1500P-1L	1000	GL 45	204	108	10
1500P-2L	2000	GL 45	243	131	6

3022P Corning Single Metric Scale, Graduated Cylinder, PP, with Funnel Top, To Contain

Translucent polypropylene graduated cylinders are manufactured with raised graduations at the primary scale points. Cylinders have a hexagonal base and are calibrated "To Contain". Tolerances according to ISO 6706. Exposure to temperatures above 60°C may affect accuracy.

Cat. No.	Capacity (mL)	Tol. (± mL)	Grad. Increment (mL)	Approx. O.D. x Height (mm)	Qty/Cs
3022P-10	10	0.20	0.20	14 x 145	12
3022P-25	25	0.50	0.50	20 x 170	12
3022P-50	50	1.00	1.00	26 x 200	12
3022P-100	100	1.00	1.00	31 x 250	12
3022P-250	250	2.00	2.00	42 x 315	6
3022P-500	500	5.00	5.00	54 x 360	6
3022P-1L	1000	10.00	10.00	65 x 440	6
3022P-2L	2000	20.00	20.00	84 x 482	3

4985P Corning Erlenmeyer Flasks, PP

Translucent polypropylene flasks are manufactured with blue graduations for reference. The flasks have a screw neck and are supplied with a blue PP cap.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Thread Finish	Qty/Cs
4985P-50	75	10	GL 45	6
4985P-100	125	20	GL 45	6
4985P-250	250	50	GL 45	6
4985P-500	500	100	GL 45	6
4985P-1L	1000	200	GL 45	4

4990P Corning® Erlenmeyer Flasks, PMP

Translucent polymethylpentene flasks are manufactured with red graduations for reference. The flasks have a screw neck and are supplied with a red PP cap.

Cat. No.	Approx. Capacity (mL)	Grad. Increment (mL)	Thread Finish	Qty/Cs
4990P-50	75	10	GL 45	6
4990P-100	125	20	GL 45	6
4990P-250	250	50	GL 45	6
4990P-500	500	100	GL 45	6
4990P-1L	1000	200	GL 45	4

5640P Corning Volumetric Flasks, PMP, Class A

Translucent flask is supplied with tapered polypropylene stopper with an individually calibrated graduation line. The product is manufactured to Class A tolerances as defined by ISO 1042. They are supplied with an imprinted lot number and certificate. These flasks may be autoclaved to 121°C without affecting the graduation tolerance. Recommended routine cleaning up to 60°C will preserve graduation markings. Height dimension is for flask only, without stopper.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Tapered Stopper	Qty/Cs
5640P-10	10	0.04	33 x 90	10/19	6
5640P-25	25	0.04	41 x 108	10/19	6
5640P-50	50	0.06	51 x 140	12/21	6
5640P-100	100	0.10	64 x 170	14/23	6
5640P-250	250	0.15	84 x 225	19/26	5
5640P-500	500	0.25	104 x 260	19/26	4
5640P-1L	1000	0.40	127 x 300	24/29	3

5641P Corning Volumetric Flasks, PP, Class B

Translucent flask is supplied with tapered polypropylene stopper with an individually calibrated graduation line. The product is manufactured to Class B tolerances as defined by ISO 1042. Exposure to temperatures above 60°C may affect accuracy. Recommended routine cleaning up to 60°C will preserve graduations. Height dimension is for flask only, without stopper.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Tapered Stopper	Qty/Cs
5641P-10	10	0.08	33 x 90	10/19	6
5641P-25	25	0.08	41 x 108	10/19	6
5641P-50	50	0.12	51 x 140	12/21	6
5641P-100	100	0.20	64 x 170	14/23	6
5641P-250	250	0.30	84 x 225	19/26	5
5641P-500	500	0.50	104 x 260	19/26	4
5641P-1L	1000	0.80	127 x 300	24/29	3

5650P Corning® Volumetric Flasks, PFA, Class A

Translucent flask is supplied with a perfluoroalkoxy-copolymer screw cap. Screw caps provide hermetic seals and help reduce the possibility of outside contamination. The product is manufactured to Class A tolerances as defined by ISO 1042 and flasks have individually calibrated graduation lines. They withstand high temperatures and are resistant to a variety of aqueous solutions and organic solvents. These flasks may be autoclaved to 121°C without affecting the graduation tolerance. Recommended routine cleaning up to 60°C will preserve graduations. Height dimension is flask only, without screw cap.

Cat. No.	Capacity (mL)	Tol. (± mL)	Approx. O.D. x Height (mm)	Thread Finish	Qty/Cs
5650P-10	10	0.04	33 x 90	GL 18	6
5650P-25	25	0.04	41 x 108	GL 18	6
5650P-50	50	0.06	49 x 143	GL 18	6
5650P-100	100	0.10	63 x 165	GL 18	6
5650P-250	250	0.15	83 x 220	GL 25	5
5650P-500	500	0.25	103 x 255	GL 25	4

6120P Corning Funnel, PP

Durable polypropylene funnels are translucent and allow safe and easy transfers of solids or liquids from one vessel to another.

Cat. No.	Diameter (mm)	Length (mm)	Stem Diameter (mm)	Stem Length (mm)	Qty/Cs
6120P-30	30	45	1.5	25	24
6120P-40	40	65	4	35	24
6120P-50	50	85	7	43	24
6120P-75	75	110	6	55	12
6120P-100	100	155	8	77	12
6120P-120	120	180	11	90	12
6120P-150	150	220	15	95	12

Technical Information

Warnings and Suggestions for the Safe Use of PYREX® and PYREXPLUS® Brand Labware

Personal Safety in the Lab

Lab safety is one of the most critical concerns of any lab. To help improve lab safety, Corning has compiled these common sense suggestions concerning the safe use of labware.

General Precautions

Never Drink From a Beaker

A standard beaker or other laboratory vessel used specifically for drinking is a personal health hazard in the laboratory. Use disposable or recyclable cups. Never drink from any standard laboratory product to avoid any possibility of personal injury or health hazard.

Chemicals

Use Chemicals Carefully

When working with volatile materials, remember that heat causes expansion, and confinement of expansion results in explosion. Remember also that danger exists, even though external heat is not applied.

Do not mix sulfuric acid with water inside a cylinder. The heat from the reaction can break the base of the vessel because of the thickness of the base and the seal.

Perchloric acid is especially dangerous because it explodes on contact with organic materials. Do not use perchloric acid around wooden benches or tables. Keep perchloric acid bottles on glass or ceramic trays having enough volume to hold all the acid in case the bottle breaks. Always wear protective clothing when working with perchloric acid.

Glass will be chemically attacked by hydrofluoric acid, hot phosphoric acid, and strong hot alkalis, so it should never be used to contain or to process these materials.

Always flush the outside of acid bottles with water before opening. Do not put the stopper on the counter top where someone else may come in contact with acid residue.

Mercury is highly toxic. Special care is needed when dealing with mercury. Even a small amount of mercury in the bottom of a drawer can poison the room atmosphere. Mercury toxicity is cumulative, and the element's ability to amalgamate with a number of metals is well known. After an accident involving mercury, the area should be cleaned carefully until there are no globules remaining. All mercury containers should be well labeled and kept tightly closed.

NOTE: Broken glassware should be disposed of as sharps. When disposing of sharps, or sharps that have been in contact with potentially infectious materials, ensure compliance with your facility guidelines, as well as local, state, and federal regulations.

Identifying Chemicals

DO NOT taste chemicals for identification. Smell chemicals only when necessary and only by wafting a small amount of vapor toward the nose.

Label with Care

Never fill a receptacle with material other than that specified by the label. Label all containers before filling. Dispose of the contents of unlabeled containers properly.

Handling Glassware

Handle Glassware Carefully

Hold beakers, bottles, and flasks by the sides and bottoms rather than by the tops. The rims of beakers or necks of bottles and flasks may break if used as lifting points. Be especially careful with multiple neck flasks.

Avoid Over Tightening Clamps

To avoid breakage while clamping glassware, use coated clamps to prevent glass-to-metal contact, and do not use excessive force to tighten clamps.

Heating

Safe Heat Sources

Be sure to check laboratory or instruction manuals when working with heat sources.

Bunsen Burners

Adjust the Bunsen burner to get a large soft flame. It will heat slowly but also more uniformly. Uniform heat is a critical factor for some chemical reactions.

Adjust the ring or clamp holding the glassware so that the flame touches the glass below the liquid level. Heating above the liquid level does nothing to promote even heating of the solution and could cause thermal shock and breakage of the vessel. A ceramic-centered wire gauze on the ring will diffuse the burner flame to provide more even heat.

Rotate test tubes to avoid overheating one particular area. Uniform heating may be critical to your experiment.

Heat all liquids slowly. Fast heating may cause bumping, which in turn may cause the solution to splatter.

Do not heat glassware directly on electrical heating elements. Excessive stress will be induced in the glass, and this can result in vessel breakage.

Hot Plates

There are several types of hot plates. Some are electrical; some are water heated. They may be ceramic or metal topped. You should consult your instruction manual before using a hot plate for the first time.

Always use a hot plate larger than the vessel being heated.

Thick-walled items, such as jars, bottles, cylinders, and filter flasks, should never be heated on hot plates.

For information on Corning brand hot plates and hot plate stirrers, see the Equipment section.

Evaporation

Evaporation work should be observed carefully. Be careful when handling a vessel that has been heated after evaporation has occurred. It may crack unexpectedly.

Heating Thick-walled Vessels

Glassware with thick walls such as bottles and jars should not be heated over a direct flame or comparable heat source.

Scratched Glassware

Do not heat glassware that is etched, cracked, nicked, or scratched. It is more prone to break.

For additional information, see Temperature section.

Mixing and Stirring

Use a rubber policeman on glass, or use PTFE rods to prevent scratching the inside of a vessel.

Do not look down into any vessel being heated or containing chemicals. Do not point a vessel's open end at another person.

A reaction may cause the contents to be ejected.

Spattering from acids, caustic materials and strong oxidizing solutions on the skin or clothing should be washed off immediately with large quantities of water.

Pipetting

Do Not Pipet by Mouth

For your safety, we suggest using a mechanical pipetting device, such as a rubber bulb or other pipetting aids available from laboratory suppliers. Do not draw any liquids into a pipet by mouth. Serious injury could result.

Temperature and Temperature Extremes

Avoid Extremes

Although PYREX® brand products can take extreme temperatures, always use caution.

Do not put hot glassware on cold or wet surfaces, or cold glassware on hot surfaces. It may break with temperature change. Cool all labware slowly to prevent breakage.

Protection from Temperature Extremes

Burns are caused by heat, ultraviolet, or infrared rays and also by extremely cold materials. Use goggles and limit your exposure time when working with extra-visual radiation. Never touch dry ice or liquid gases with your bare hands. Use tongs or gloves to remove all glassware from heat. Hot glass can cause severe burns. Protective gloves, safety shoes, aprons, and goggles should be worn in case of chemical accidents, spilling, or splattering.

Exposure to Heat

The recommended temperature use range for PYREXPLUS® labware is 10°C to 80°C. PYREXPLUS labware is designed to withstand the temperatures associated with steam sterilization. Do not place over direct heat or an open flame. Prolonged exposure to dry heat above 80°C may cause the coating to become brittle and thus reduce the useful life of the vessel. A brown appearance or hardness to the touch are signs that the coating has become brittle and the product should be disposed of.

The upper dry heat temperature limit for PYREXPLUS labware is 110°C (230°F). PYREXPLUS labware should not be exposed to elevated temperature in a vacuum greater than 5 inches Hg (127 mm Hg).

Vacuum and Pressure Warning

Because of variations in conditions, Corning cannot guarantee any glassware against breakage under vacuum or pressure. Adequate precautions should be taken to protect personnel doing such work. We have included suggestions on personal safety in the lab, see the Safety section.

Ventilation

Work In A Well-ventilated Area

When working with chlorine, hydrogen sulfide, carbon monoxide, hydrogen cyanide, and other very toxic substances, always use a protective mask or perform these experiments under a fume hood in a well-ventilated area.

Safety Features and Benefits of PYREX® and PYREXPLUS® Brand Labware

This section provides product information for the various types of glass labware products made by Corning. In addition, we have provided tips and additional suggestions on the safe use and care of your lab products.

PYREX® Labware

PYREX glass has proven itself to be tough and reliable for over 100 years of demanding use in the laboratory environment. The PYREX name is associated with high quality, corrosion- and heat-resistant laboratory glassware throughout the world.

Corning products are designed and produced with safety in mind. It is important to remember that most labware products are designed for specific applications. Be sure you have the right piece of ware for the use you have in mind. Using a laboratory glassware product for applications other than those it was designed for can be dangerous.

Beakers

PYREX brand beakers are manufactured with uniform wall thickness, and offer an optimum balance between thermal shock resistance and mechanical strength.

Large, permanent marking spots on PYREX beakers allow the user to record more data on the vessel to help identify the contents quickly and easily.

Most impact breakage occurs on a beaker's rim. PYREX brand beakers have extra glass in the rim for added strength. The pour spout is gently sloped rather than hooked, minimizing breakage. The low-flare spout allows controlled pouring.

Centrifuge Tubes

PYREX brand centrifuge tubes are made from durable Code No. 7740 borosilicate glass with special design consideration given to stress points caused by centrifugal forces. Before centrifuging hazardous chemicals or expensive samples, consult the nomogram on page 121 for computing relative centrifugal forces (RCF) to determine safe centrifugation rates.

Cylinders

The most important specification for graduated cylinders is tolerance. Selected tubing and careful calibrations assure meeting tolerances in PYREX brand cylinders. In addition, Corning was the first to put hexagonal bases on cylinders to keep them from rolling off a lab bench. Legibility was improved by designing Lifetime Red™ panel cylinders.

Two cylinders of special safety interest are the 3046 and 3050 graduated cylinders. Both feature a reinforced bead of glass near the top of the rim. The reinforced bead helps to reduce breakage if the cylinder is upset. These cylinders are available in 10 mL, 25 mL, 50 mL, 100 mL, and 250 mL capacities.

Flasks

Uniform wall thickness, characteristic of all round bottom PYREX flasks, allows the vessels to satisfy various mixing, heating, and boiling requirements commonly encountered in most laboratory work.

The thick walls of Corning filter flasks provide the mechanical strength needed for vacuum work. Consequently, filter flasks should never be heated. For this reason, the words "Filter Flask" appear on the product.

Standard Erlenmeyer flasks are suitable for moderate heating, though they are primarily intended for mixing applications.

Stopcocks and Joints

PYREX Brand All Glass Stopcocks

General purpose PYREX brand glass stopcocks with the ⅋ symbol are manufactured with 1:10 tapers and finishes as specified in ASTM E-675. They feature interchangeable solid glass plugs. PYREX brand glass stopcocks with hollow, blown-glass plugs are lapped to the outer shell, thus insuring uniformity between mating surfaces. They can function safely to 10^4 torr. (mm of Hg) of vacuum with minimal leakage.

PYREX Glass-bodied Stopcocks with PTFE Plugs

These general purpose stopcocks are marked with the ⅋ symbol and manufactured with 1:5 tapers and finishes as specified by ASTM. Because no lubricant is needed, they are ideal for applications where grease contamination is a factor.

Rotaflo® Stopcocks

The Rotaflo stopcock can be used under varying conditions, ranging from general purpose to high vacuum applications. These stopcocks are ideal for applications where contamination is a factor; only PTFE and borosilicate glass come in contact with liquids or gases.

The Hi-Vac Rotaflo stopcock is designed to function safely to 10^3 torr. (mm of Hg) of vacuum with minimal leakage. They can be used at temperatures ranging from -20°C to 200°C and autoclaved at 20 psi and 126°C.

Joining and Separating Glass Apparatus

When pieces are not to be used for an extended period of time, take apart stopcocks, ground joints, flask stoppers, and joints to prevent sticking. Remove the grease from the joints. PTFE stoppers and stopcocks should be loosened slightly.

For easy storage and reuse, put a strip of thin paper between ground joint surfaces.

Freeing Seized Ground Joints

If a ground joint sticks, this procedure will generally free it. Immerse the joint in a glass container of freshly poured carbonated liquid. You will be able to see the liquid penetrate between the ground surfaces. When the surfaces are wet (allow 5 to 10 minutes submersion), remove the joint and rinse with tap water. Wipe away excess water.

Then gently warm the wall of the outer joint by rotating it for 15 to 20 seconds over a low Bunsen burner flame. Wear heat-resistant gloves to avoid burns. Be sure that 50% of the inner

surface is wet before inserting the joint in the flame. Remove from the flame and gently twist the two members apart. If they do not come apart, repeat the procedure. Never use force when separating joints by this method.

Lubricating Stopcocks and Stoppers

Glass stopcocks on burets and separatory funnels should be lubricated frequently to prevent sticking. If one does stick, a stopcock plug remover, available from laboratory supply houses, should be used.

Wet both tubing and stopper with glycerin or water when trying to insert glass tubing into a rubber stopper. Wear a protective glove and wrap glass in a towel to prevent injury.

Fire polish rough ends of glass tubing before inserting into flexible tubing or through a stopper.

If it becomes impossible to remove a thermometer from a rubber stopper, it is best to cut away the stopper rather than to risk breaking the thermometer.

In using lubricants, it is advisable to apply a light coat of grease completely around the upper part of the joint. Use only a small amount and avoid greasing that part of the joint that contacts the inner part of the apparatus.

Types of Lubricants

Three types of lubricant are commonly used on standard taper joints. (a) A hydrocarbon grease is the most widely used. It can be easily removed by most laboratory solvents, including acetone. (b) Because hydrocarbon grease is so easily removable, silicone grease is often preferred for higher temperature or high vacuum applications. It can be removed readily with chlorinated solvents. (c) For long-term reflux or extraction reactions, a water-soluble, organic-insoluble grease, such as glycerin is suitable. Water will clean glycerin.

Volumetric Ware

The accuracy of volumetric ware depends on the care used in calibrating it, using the correct type of ware for the application, handling the ware properly, and insuring the ware is clean. Calibration of volumetric ware is usually done at 20°C, and the ware should be used at approximately this temperature. Refrigerated liquids should be allowed to come to room temperature before measuring them. Under normal use and care, the calibration of volumetric ware will not change. Do not expose volumetric ware to excessive heat, approaching PYREX® upper service limit.

Types of Ware

Serialized/Certified Ware: Certified Ware is calibrated to Class A specifications. Each piece is individually serialized and furnished with a Certificate of Identification and Capacity, traceable to NIST standards, guaranteeing its calibration.

Class A Ware: Class A Ware is manufactured to tolerances established by ASTM E-694 for volumetric ware, ASTM E-542 for calibration of volumetric ware, and ASTM E-288 for volumetric flasks. Utilizes the same tolerances as certified ware but is not certified and has no certificate.

Class B Ware: Class B Ware is generally calibrated to twice the tolerance of Class A Ware.

Other Types: There are also some specifications for other calibrated glassware, set by various federal bureaus or professional societies. Tolerances for these and references to the specifications are found in this catalog under individual product descriptions.

Calibrated Ware Markings

Lines on graduated ware may be acid etched, wheel engraved, abrasive blasted, enameled, or permanently stained into the glass. Etched or engraved lines are usually colored by fired-in enamels. The width of the lines should not exceed 0.4 mm for subdivided ware or 0.6 mm for single-line ware. In addition to the lines, the ware should be marked with its capacity, the temperature at which it should be used, and whether the piece was calibrated T.C. ("to contain") or T.D. ("to deliver") the stated volume. T.C. means that the ware is calibrated so that the mark indicates the volume held in the container. T.D. means the mark indicates the amount of air-free distilled water at 20°C that is delivered when it is poured out. Numbers indicating volume at certain lines are placed immediately above the line. Volumetric flask markings must cover at least 90% of the neck circumference.

Reading Volumetric Ware

ASTM E-542 details the method of reading the meniscus as follows: For all apparatus calibrated by this procedure, the reading or setting is made on the lowest point of the meniscus. In order that the lowest point be observed, it is necessary to place a shade of some dark material immediately below the meniscus, which renders the profile of the meniscus dark and clearly visible against a light background. A convenient device for this purpose is a collar-shaped section of this thick black rubber tubing cut open at one side and of such size as to clasp the tube firmly. Alternatively, black paper may be used.

Corning laboratory products are calibrated in accordance with clause 7.3.2.1 of ASTM E-542, which states: *The position of the lowest point of the meniscus with reference to the graduation line is horizontally tangent to the plane of the upper edge of the graduation line. The position of the meniscus is obtained by having the eye in the same plane of the upper edge of the graduation line.*

PYREXPLUS® Labware

PYREXPLUS laboratory glassware is PYREX brand borosilicate glass labware which has been coated with a tough, transparent plastic vinyl. The coating, which is applied to the outside of the vessel, helps prevent exterior surface abrasion. It also helps minimize the loss of contents and helps contain glass fragments if the glass vessel is broken. The recommended temperature use range for PYREXPLUS labware is 10°C to 80°C.

See page 120 for additional information on the use and care of PYREXPLUS labware.

Suggestions for Cleaning

Good laboratory technique demands clean glassware, because the most carefully executed piece of work may give an erroneous result if dirty glassware is used. In all instances, glassware must be physically clean, chemically clean, and in many cases, bacteriologically clean or sterile.

All glassware must be absolutely grease-free. The safest criteria of cleanliness is uniform wetting of the surface by distilled water. This is especially important in glassware used for measuring the volume of liquids. Grease and other contaminating materials will prevent the glass from becoming uniformly wetted. This in turn will alter the volume of residue adhering to the walls of the glass container and thus affect the volume of liquid delivered. Furthermore, in pipets and burets, the meniscus will be distorted and the correct adjustments cannot be made. The presence of small amounts of impurities may also alter the meniscus.

Cleaning

Wash labware as quickly as possible after use. If a thorough cleaning is not possible immediately, put glassware to soak in water. If labware is not cleaned immediately, it may become impossible to remove the residue.

Most new glassware is slightly alkaline in reaction. For precision chemical tests, new glassware should be soaked several hours in acid water (a 1% solution of hydrochloric or nitric acid) before washing.

Brushes with wooden or plastic handles are recommended, as they will not scratch or abrade the glass surface.

Glassware Cleaners

When washing, soap, detergent, or cleaning powder (with or without an abrasive) may be used. Cleaners for glassware include Alconox, Tide, and Fab. The water should be hot. For glassware that is exceptionally dirty, a cleaning powder with a mild abrasive action will give more satisfactory results. The abrasive should not scratch the glass. During the washing, all parts of the glassware should be thoroughly scrubbed with a brush. This means that a full set of brushes must be at hand—brushes to fit large and small test tubes, burets, funnels, graduates, and various sizes of flasks and bottles. Motor-driven revolving brushes are valuable when a large number of tubes or bottles are processed. Do not use cleaning brushes that are so worn that the spine hits the glass. Serious scratches may result. Scratched glass is more prone to break during experiments. Any mark in the uniform surface of glassware is a potential breaking point, especially when the piece is heated. Do not allow acid to come into contact with a piece of glassware before the detergent (or soap) is thoroughly removed. If this happens, a film of grease may be formed.

Safe Use of Chromic Acid

If glassware becomes unduly clouded or dirty or contains coagulated organic matter, it must be cleansed with chromic acid cleaning solution.[1] The dichromate should be handled with extreme care, because it is a powerful corrosive and carcinogen.

When chromic acid solution is used, the item may be rinsed with the cleaning solution or it may be filled and allowed to stand. The length of time it is allowed to stand depends on the amount of contamination on the glassware. Relatively clean glassware may require only a few minutes of exposure; if debris is present, such as blood clots, it may be necessary to let the glassware stand all night. Due to the intense corrosive action of the chromic acid solution, it is good practice to place the stock bottle, as well as the glassware being treated, in flat glass pans or pans made from lead or coated with lead, or plastic polymer pans determined compatible with the concentration of chromic acid you are using. Extra care must be taken to be sure chromic acid solution is disposed of properly.

Special types of precipitates may require removal with nitric acid, aqua regia, or fuming sulfuric acid. These are very corrosive substances and should be used only when required.

Removing Grease

Grease is best removed by boiling in a weak solution of sodium carbonate. Acetone or any other fat solvent may be used. Strong alkalis should not be used. Silicone grease is mast easily removed by soaking the stopcock plug or barrel for 2 hours in warm decahydronaphthalene.

Drain and rinse with acetone or use fuming sulfuric acid for 30 minutes. Be sure to rinse off all of the cleaning agents.

Rinsing

It is imperative that all soap, detergents, and other cleaning fluids be removed from glassware before use. This is especially important with the detergents, slight traces of which will interfere with serologic and cultural reactions.

After cleaning, rinse the glassware with running tap water. When test tubes, graduates, flasks, and similar containers are rinsed with tap water, allow the water to run into and over them for a short time, then partially fill each piece with water, thoroughly shake, and empty, and repeat at least six times. Pipets and burets are best rinsed by attaching a piece of rubber tubing to the faucet and then attaching the delivery end of the pipets or burets to a hose, allowing the water to run through them. If

[1] Chromic acid cleaning solution: Use powdered commercial or technical grade sodium dichromate or potassium dichromate. If the compound is in the form of crystals, grind to a fine powder in a mortar. To 20 grams of the powder in a liter beaker, add a little water, sufficient to make a thin paste. Slowly add approximately 300 mL of commercial concentrated sulfuric acid, stirring well. Transfer to a glass-stoppered bottle.

Larger amounts can be made in the same proportions. Use the clear supernatant solution. Chromic acid solution can be used repeatedly until it begins to turn a greenish color. Dispose of in accordance with appropriate regulations. Dilute with large volumes of water before discarding, or carefully neutralize the diluted solution with sodium hydroxide. Chromic acid solution is strongly acidic and will burn the skin severely. Use care in handling it.

the tap water is very hard, it is best to run it through a deionizer before using.

Rinse the glassware in a large bath of distilled water. Rinse with distilled water. To conserve distilled water, use a five gallon bottle as a reservoir. Store it on a shelf near your clean up area. Attach a siphon to it and use it for replenishing the reservoir with used distilled water.

For sensitive microbiologic assays, meticulous cleaning must be followed by rinsing 12 times in distilled water.

Sterilizing Contaminated Glassware

Glassware which is contaminated with blood clots, such as serology tubes, culture media, petri dishes, etc., must be sterilized before cleaning. It can best be processed in the laboratory by placing it in a large bucket or boiler filled with water, to which 1% to 2% soft soap or detergent has been added, and boiled for 30 minutes. The glassware can then be rinsed in tap water, scrubbed with detergent, rinsed again.

You may autoclave glassware or sterilize it in large steam ovens or similar apparatus. If viruses or spore-bearing bacteria are present, autoclaving is absolutely necessary.

Handling and Storing

To prevent breakage when rinsing or washing pipets, cylinders, or burets, be careful not to let tips hit the sink or the water tap.

Dry test tubes, culture tubes, flasks, and other labware by hanging them on wooden pegs or placing them in baskets with their mouths downward and allowing them to dry in the air; or place them in baskets to dry in an oven.[2] Drying temperatures should not exceed 140°C. Line the drying basket with a clean cloth to keep the vessel mouths clean.

Dry burets, pipets, and cylinders by standing them on a folded towel. Protect clean glassware from dust. This is done best by plugging with cotton, corking, taping a heavy piece of paper over the mouth, or placing the glassware in a dust-free cabinet.

Store glassware in specially designed racks. Avoid breakage by keeping pieces separated.

Do not store alkaline liquids in volumetric flasks or burets. Stoppers or stopcocks may stick.

Cleaning Specific Types of Glass Labware

Proper care and handling of PYREX® and PYREXPLUS® labware will greatly increase its life and increase the safety of your workplace.

PYREXPLUS Labware

Autoclaving

PYREXPLUS labware can be successfully sterilized using liquids or dry cycle sterilization which involves no vacuum or low vacuum (<5 inches Hg).

Recommended cycles for automated autoclaves are:

	Autoclave Type	
Autoclave Cycle	**Gravity**	**Prevacuum**
Liquid	Yes	Yes
Dry	Yes	No
Prevac	–	No

CAUTION: Always autoclave vessels with loose caps or closures.

Steam sterilization time should not exceed 15 minutes at 121°C (250°F). Drying time should not exceed 15 minutes at 110°C (230°F). The actual cavity temperature of the autoclave should be checked to be sure the autoclave temperature does not exceed the recommended sterilization and drying temperature.

Autoclaving – Cloudiness

Should the coating appear clouded due to dissolved moisture, simply let dry overnight at room temperature or briefly heat to 110°C (230°F).

Cleaning

As is common practice, clean all glassware before use. Any non-abrasive glassware detergent may be used for hand or automatic dishwasher cleaning. If using a dishwasher or glassware dryer, care should be taken to be sure the drying temperature does not exceed 110°C (230°F). Exposure to dry heat should be minimized.

Avoid brushes and cleaning pads which could abrade the glass or damage the coating. If using a chromic acid cleaning solution minimize contact of the solution with the coating.

Labeling and Marking

Use water-based markers for temporary marking or labeling of the PYREXPLUS labware coating. Solvent-based markers, dyes, and stains cannot be removed from the coating.

NOTE: A slight "plastic" odor may be detected when handling PYREXPLUS labware. This is due to additives in the plastic coating which are responsible for its superior performance. The odor is normal and will not affect the inertness of the inside borosilicate glass surface.

For additional information on the use and care of PYREXPLUS labware, see page 123.

Burets

Remove the stopcock or rubber tip and wash the buret with detergent and water. Rinse with tap water until all the dirt is removed. Then rinse with distilled water and dry. Wash the stopcock or rubber tip separately. Before a glass stopcock is placed in the buret, lubricate the joint with stopcock lubricant. Use only a small amount of lubricant. Burets should always be covered when not in use.

[2] Do not apply heat directly to empty glassware which is used in volumetric measurements. Such glassware should be dried at temperatures of no more than 80°C to 90°C.

Culture Tubes

Culture tubes which have been used previously must be sterilized before cleaning. The best method for sterilizing culture tubes is by autoclaving for 30 minutes at 121°C (15 p.s.i. pressure). Media which solidifies on cooling should be poured out while the tubes are hot. After the tubes are emptied, brush with detergent and water, rinse thoroughly with tap water, rinse with distilled water, place in a basket, and dry.

If tubes are to be filled with a media which is sterilized by autoclaving, do not plug until the media is added. Thus, both media and tubes are sterilized with one autoclaving.

If the tubes are to be filled with sterile media, plug and sterilize the tubes in the autoclave or dry air sterilizer before adding the media.

Dishes and Culture Bottles

Sterilize and clean as detailed under Culture Tubes. Wrap in heavy paper or place in a Petri dish can. Sterilize in the autoclave or dry air sterilizer.

Pipets

Place pipets, tips down, in a cylinder or tall jar of water immediately after use. Do not drop them into the jar. This may break or chip the tips and render the pipets useless for accurate measurements. A pad of cotton or glass wool at the bottom of the jar will help to prevent breaking of the tips. Be certain that the water level is high enough to immerse the greater portion or all of each pipet. The pipets may then be drained and placed in a cylinder or jar of dissolved detergent or, if exceptionally dirty, in a jar of chromic acid cleaning solution. After soaking for several hours or overnight, drain the pipets and run tap water over and through them until all traces of dirt are removed. Soak the pipets in distilled water for at least 1 hour. Remove from the distilled water, rinse, dry the outside with a cloth, shake the water out, and dry.

Blood Cell Count Diluting Pipets

After use, rinse thoroughly with cool tap water, distilled water, alcohol, or acetone, and then ether.

Dry by suction. Do not blow into the pipets, as this will cause moisture to condense on the inside of the pipet.

To remove particles of coagulated blood or dirt, a cleaning solution should be used. One type of solution will suffice in one case, whereas a stronger solution may be required in another. It is best to fill the pipet with the cleaning solution and allow to stand overnight. Sodium hypochlorite (laundry bleach) or a detergent may be used. Hydrogen peroxide is also useful. In difficult cases, use concentrated nitric acid. Some particles may require loosening with a horse hair or piece of fine wire. Take care not to scratch the inside of the pipet.

Automatic Pipet Washers

Where a large number of pipets are used daily, it is convenient to use an automatic pipet washer. Some of these, such as those made of metal, can be connected directly by permanent fixtures to the hot and cold water supplies. Others, such as those made with polyethylene, can be attached to the water supplies by a rubber hose. Polyethylene baskets and jars may be used for soaking and rinsing pipets in chromic acid cleaning solution. Electrically heated metallic pipet dryers are also available.

After drying, place pipets in a dust-free drawer. Wrap serologic and bacteriologic pipets in paper or place in pipet cans and sterilize in the dry air sterilizer. Pipets used for transferring infectious material should have a cotton plug placed in the top end of the pipet before sterilizing. The plug will prevent the material being measured from being drawn accidentally into the pipetting device.

Serological Tubes

Serological tubes should be chemically clean but need not be sterile. However, specimens of blood which are to be kept for some time at room temperature should be collected in a sterile container. It may be expedient to sterilize all tubes.

To clean and sterilize tubes containing blood, discard the clots in a waste container and place the tubes in a large basket. Put the basket, with others, in a large bucket or boiler. Cover with water, add a fair quantity of soft soap or detergent, and boil for 3 0 minutes. Rinse the tubes, clean with a brush, rinse, and dry with the usual precautions.

It is imperative when washing serological glassware that all acids, alkali, and detergents be completely removed. Acids, alkalis, and detergents in small amounts interfere with serologic reactions.

Serologic tubes and glassware should be kept separate from all other glassware and used only for serologic procedures.

Slides and Cover Glass

It is especially important that microscope slides and cover glass used for the preparation of blood films or bacteriologic smears be perfectly clean and free from scratches.

Slides should be washed, placed in glacial acetic acid for 10 minutes, rinsed with distilled water, and wiped dry with clean paper towels or cloth. Once the slides have been washed, place them in a wide jar of alcohol. As needed, remove from the jar and wipe dry. If the slides are dry stored, wash them with alcohol before use.

NOTE: Broken glassware should be disposed of as sharps. When disposing of sharps, or sharps that have been in contact with potentially infectious materials, ensure compliance with your facility guidelines, as well as local, state, and federal regulations.

Glass Technical Data

The products in this catalog are made from different glass compositions or composite materials which are sold under a variety of brand names. The following pages summarize some of the properties of these glasses.

PYREX® Brand Labware

Code No. 7740 Glass

Of the hundreds of commercial glasses produced, Code No. 7740 borosilicate glass comes closest to being the ideal glass for most laboratory applications.

With proper care, it will withstand nearly all temperatures used in normal laboratory use. It is highly resistant to chemical attack. Its low coefficient of expansion allows it to be manufactured with heavy walls, giving it mechanical strength while retaining reasonable heat resistance. And, it is a glass that can be fabricated more easily than most other glasses, thus making it more economical.

PYREX Brand Low Actinic Labware

Code No. 7740 Glass with a Red Ultraviolet Shielding Stain

PYREX Low Actinic Labware is made from Code. No. 7740 glass with copper replacing the sodium in the glass matrix at the surface. The resulting product is as durable as the base glass. PYREX Low Actinic Labware was originally developed for work in the vitamin field, but it has found other uses in applications with chemicals sensitive to light in the 3,000 to 5,000 Angstrom range.

PYREXPLUS® Brand Labware

Code No. 7740 Glass with a Vinyl Coating

PYREXPLUS brand labware is Code No. 7740 PYREX brand borosilicate glass labware with a tough transparent vinyl coating. It is designed to resist exterior surface abrasion. It also helps minimize loss of contents if the glass vessel is accidentally broken.

Chemical Properties, Light Transmittance, and Pressure Data

Chemical Durability

The resistance to attack of different glasses by various chemicals may vary depending to a great extent upon temperature and pH values. The best way to determine which glass is most satisfactory is by simultaneous testing. Table 1 gives some representative figures for the glasses in this catalog.

The coating of PYREXPLUS brand labware is designed to resist leakage resulting from a brief chemical exposure that might occur if the vessel is broken. Prolonged and/or repeated chemical exposure of the coating to aldehydes, ketones, chlorinated solvents, and concentrated acids should be avoided.

Table 1. Relative Chemical Durability

Weight loss in milligrams of glass removed per cm^2 surface area exposed to reagent (mg/cm^2) in 24 hours at 95°C.

Glass Code No.	5% NaOH	5% HCl
7740	5.0	0.005

Chemical Composition

The chemical composition of glasses is probably of interest only to those who are concerned with extremely precise determinations.

Transmittance Data

The transmittance of low actinic glassware is as follows:

Wave Length A	% Transmittance
3,000	0
4,000	0-1
5,000	2-4

The visible light transmittance (400 to 760 nm) of Code No. 7740 glass is 92% at 2 mm thickness.

Code No. 7740
Corning Trademark: PYREX®

Common Names

Borosilicate, low expansion, Type I Glass

Standards

Type I, Class A borosilicate conforming to federal specification DD-G-54 lb and ASTM E-438. Also meets the U.S. Pharmacopoeia specifications for Type I borosilicate glass.

Composition

Compound	Approx. Amount (%)
SiO_2	80.6
B_2O_3	13.0
Na_2O	4.1
Al_2O_3	2.3

Properties

Coefficient of Expansion	32.5 x 10^{-7} cm/cm/°C
Strain Point	510°C
Anneal Point	560°C
Soften Point	821°C
Density	2.53 g/cm^3
Youngs Modulus	76 X 10^3 Kg/mm^2
Refraction Index	1.474 @ Sodium D Line
Temperature Limits	490°C (Extreme Service) 230°C (Normal Service)
Maximum Thermal Shock	160°C

Applications

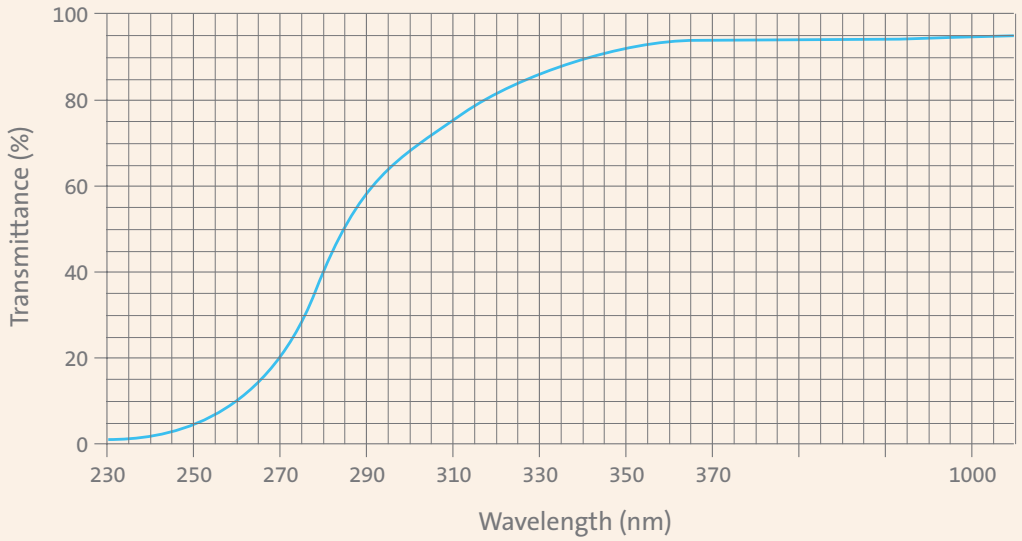
Designed for use in all products requiring very high resistance to strong acids, alkalis, and products intended for use in heat applications such as autoclaves, hot plates, and open flame.

Products

Beakers, burets, bottles, centrifuge tubes, condensers, cylinders, desiccators, dishes, flasks, fritted ware, funnels, ground joints, jars, stopcocks, tubing, and other assorted products.

Warnings

1. Thick-walled ware, such as bottles, jars, and desiccators, should not be heated over a flame, a hot plate, or other comparable source of heat.
2. Do not use hydrofluoric or hot phosphoric acid in glass.
3. Do not use scratched or abraded glassware.
4. Hot alkalis will etch glass.



Code No. 7740 Transmittance
Approximately 1 mm thick

Code No. 7789
Corning Trademark: PYREX®

Common Names

Borosilicate, low expansion, Type I Glass

Standards

Type I, Class A Borosilicate conforming to federal specification DD-G-54 Ib and ASTM E-438 (except for K_2O content). This glass also meets the U.S. Pharmacopoeia specifications for Type I Borosilicate Glass.

Composition

Compound	Approx. Amount (%)
SiO_2	81
B_2O_3	13
Na_2O	4
Al_2O_3	2

Properties

Coefficient of Expansion	32.5 x 10^{-7} cm/cm/°C
Strain Point	510°C
Anneal Point	560°C
Soften Point	815°C
Density	2.22 g/cm^3
Youngs Modulus	6.4 X 10^3 Kg/mm^2
Refraction Index	1.474 @ Sodium D Line
Temperature Limits	Not Available
Maximum Thermal Shock	160°C

Applications

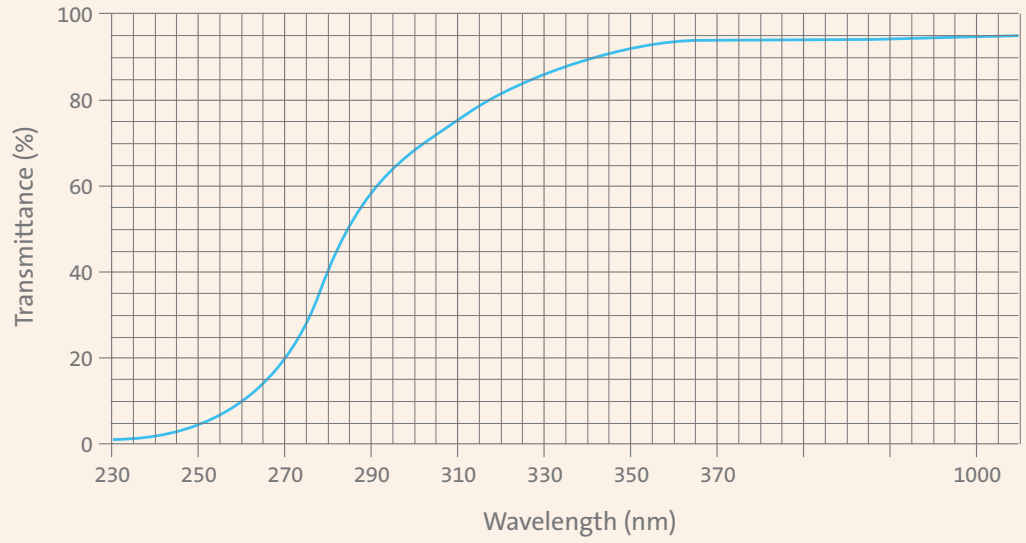
Designed for use in all products requiring very high resistance to strong acids and alkalis. Products may be autoclaved. Code No. 7740 glass can be sealed to this glass.

Products

Reagent bottles in sizes 125 mL through 2000 mL. Also used in Cat. No. 1395 series media bottles.

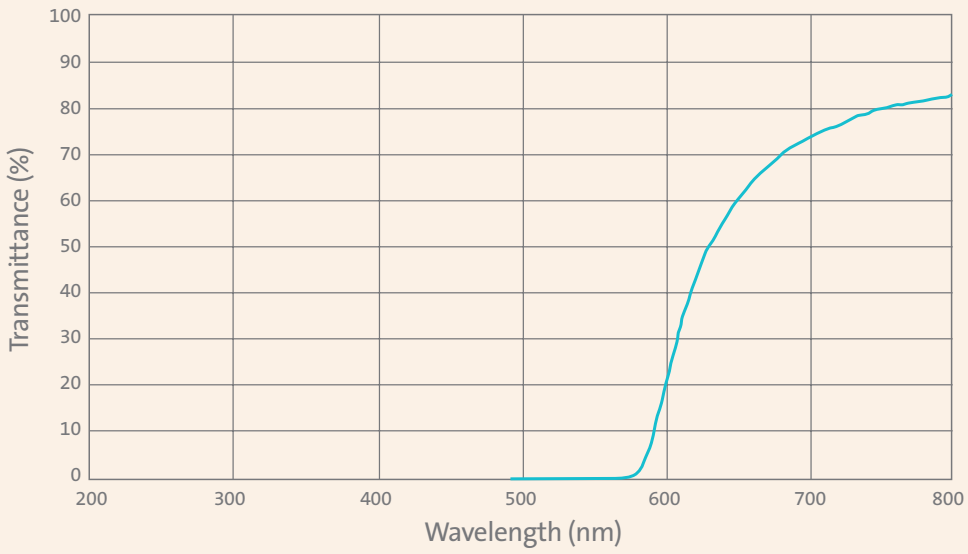
Warnings

1. Not recommended for use on hot plates.
2. Do not use hydrofluoric or hot phosphoric acid in glass.
3. Do not use scratched or abraded glassware.
4. Hot alkalis will etch glass.



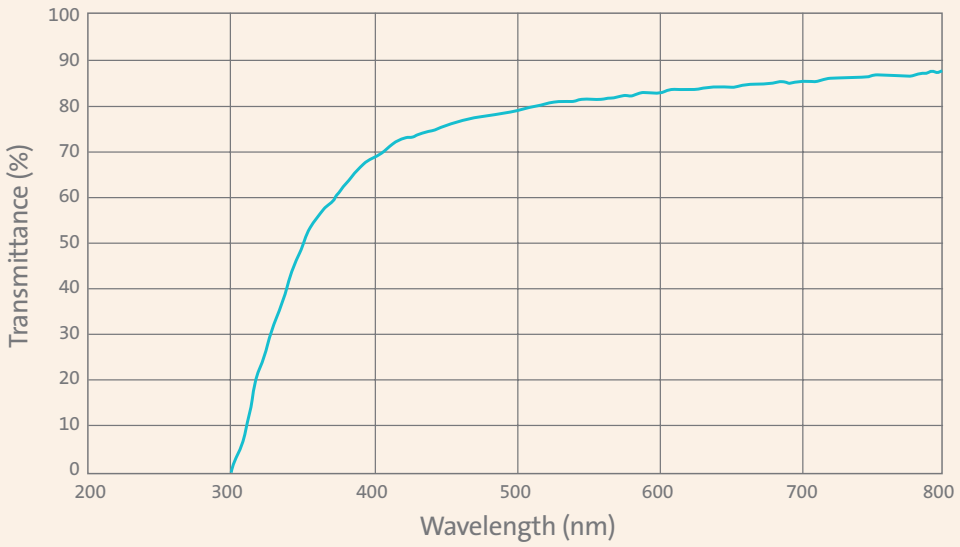
Code No. 7789 Transmittance
Approximately 1 mm thick

Transmission/Wavelength for PYREX® Brand Low Actinic Labware



Transmittance data for low actinic product
Approximately 2.80 mm thick

Transmission/Wavelength for PYREXPLUS® Brand Labware



Transmittance data for PYREXPLUS product
Approximately 3.15 mm thick

Properties of Corning® Glasses

For the convenience of those interested in the properties of glasses manufactured by Corning, data on some representative glasses are listed on this page.

				7740	7800	0071
1.	Glass Code			**7740**	**7800**	**0071**
2.	Type			Borosilicate	Borosilicate	Soda Lime
3.	Color			Clear	Clear	Clear
4.	Principal Use			General	Pharmaceutical	Jar
5.	Forms Usually Available			BPSTU	T	
6.	Corrosion Resistance		Class	1		
			Weathering	1	1	
			Water	1	1	
			Acid	1	1	
7.	Thermal Expansion (Multiply by 10^{-7} cm/cm/°C)		0°C-300°C	32.5	55	90
			25°C to Setting Point	35	53	
8.	Upper Working Temperatures (mechanical considerations only)	Annealed	Normal Service (°C)	230	200	
			Extreme Service (°C)	490	460	
		Tempered	Normal Service (°C)	260		
			Extreme Service (°C)	290		
9.	Thermal Shock Resistance Plates 15 x 15 cm Annealed		3.2 mm Thick (°C)	160		
			6.4 mm Thick (°C)	130		
			12.7 mm Thick (°C)	90		
10.	Thermal Stress Resistance (°C)			54	33	
11.	Viscosity Data		Strain Point (°C)	510	521	495
			Annealing Point (°C)	560	565	537
			Softening Point (°C)	821	785	726
			Working Point (°C)	1252	1189	
12.	Knoop Hardness KHN_{100}				487	
13.	Density g/cm³			2.23	2.34	2.47
14.	Young's Modulus (Multiply by 10^3 Kg/mm²)			6.4		
	Poison's Ratio			.20		
15.	$\log_{10}$ of Volume Resistivity (ohm-cm)		25°C	15.0		
			250°C	8.1	7.0	
			350°C	6.6	5.7	
16.	Dielectric Properties at 1 MHz 20°C		Power Factor (%)	0.50		
			Dielectric Constant	4.6		
			Loss Factor (%)	2.6		
17.	Refractive index			1.474	1.491	1.512
	Stress-Optical Coefficient, nm/cm			394	319	273
	Kg/mm²					

Refer to next page for footnote references (Thermal Properties).

Thermal Properties

The table on the previous page indicates the thermal properties for various Corning® glasses. The strain point represents the extreme upper limit of serviceability for annealed glass. A practical maximum service temperature will always be below this point.

The annealing point is the temperature, at the upper end of the annealing range, at which the internal stress is reduced to a commercially acceptable value over a short period of time.

In an annealing operation, the glass is slowly cooled from above the annealing point to somewhat below the strain point.

The softening point is the temperature at which a small diameter fiber of the glass will elongate under its own weight. As one moves above this temperature, the glass becomes more workable. As a general rule, the coefficient of expansion indicates the thermal shock resistance of the glass. The lower the expansion, the greater the resistance of the glass to sudden temperature changes.

Footnote References for "Properties of Corning Glasses"

(See previous page.)

Line 5

B-Blown Ware	U-Panels	P-Pressed Ware
S-Plate Glass	T-Tubing and Rod	

Line 6

These borosilicate glasses may rate differently, if subjected to excessive heat treatment.

Line 8

Normal service no breakage from excessive thermal shock is assumed. Extreme limits glass will be very vulnerable to thermal shock. Recommendations in this range are based on mechanical stability considerations only. Tests should be made before adopting final designs. These data are approximate only.

Line 9

These data are approximate only. Based on plunging sample into cold water after oven heating resistance of 100°C (212°F), which means no breakage if heated to 100°C (212°F) and plunged into water at 10°C (50°F). Tempered samples have over twice the resistance of annealed glass.

Line 10

Resistance in °C (°F) is the temperature differential between the two surfaces of a tube or a constrained place that will cause a tensile stress of 0.7 kg/mm (1000 psi) on the cooler surface.

Line 11

These data are subject to normal manufacturing variations.

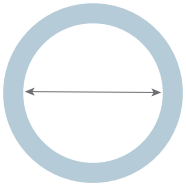
Line 12

Determined by revised ASTM standard.

Line 17

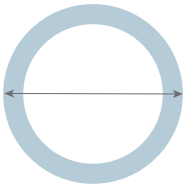
Refractive index may be at either the sodium yellow line (589.3 nm) or helium yellow line (587.6 nm). Values at these wavelengths do not vary in the first three places beyond the decimal point.

Glossary of Glass Tubing



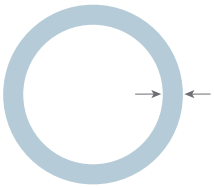
1. I.D.

Inside diameter of tubing.



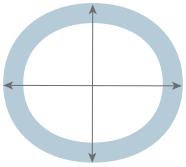
2. O.D.

Outside diameter of tubing.



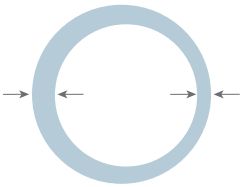
3. Wall

The normal thickness of the glass between the inside and outside surfaces of the tubing.



4. O.O.R.

The difference between the minimum and maximum O.D. measurements made at one point along a piece of tubing.



5. Siding

This is the difference between the minimum and the maximum wall thickness as measured at the end of the tube.

6. Airlines

These are elongated air bubbles within the tubing or rod. They may be buried within the glass or open on the surface.

7. Chips

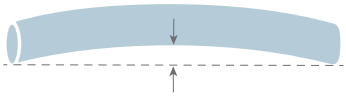
A depression on the glass surface of tubing or rod caused by flaking of the glass.

8. Stones

A piece of undissolved or crystallized refractory material or glass batch appearing in the glass as an opaque lump.

9. Bow

Bow is measured as the maximum deviation from a straight line connecting any two points on the tube.



10. Taper

The maximum gradual dimensional change in the O.D. of one end of the tubing or rod to the opposite end.

11. Check

A fissure extending into the wall of tubing or rod.

12. Scuff scratch

Abrasion which might occur during the manufacturing process, shipping, storage, or use.

13. Cord

An optical or surface effect usually in a narrow band caused by non-homogeneous glass.

14. Stress

A condition of tension or compression existing within the glass.

15. End Finishes

a. Cut at Draw – Raw ends not fire-polished or glazed.

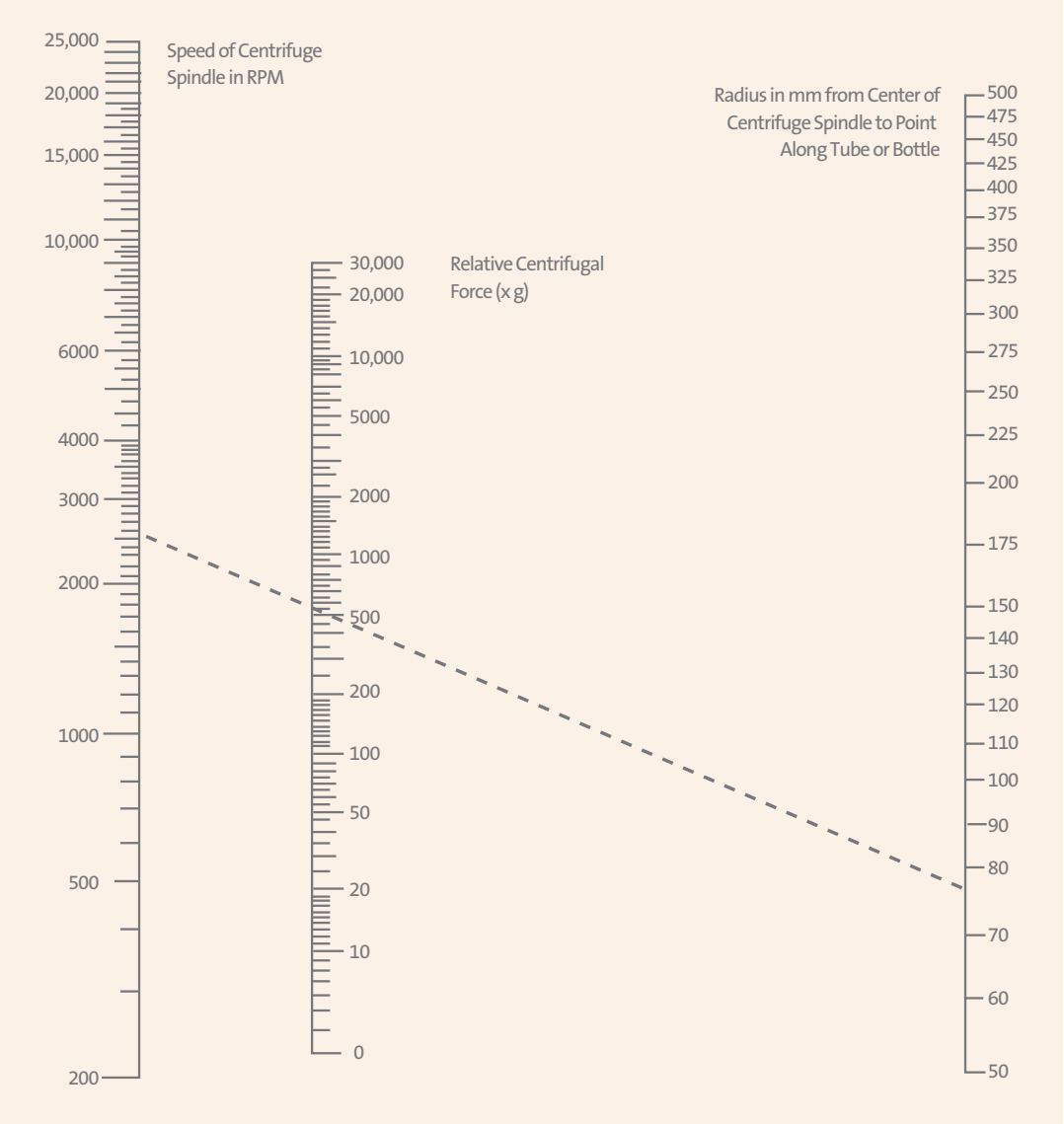
b. Cut and Fire-polished – Cut at draw. Ends fire-polished to heal sharp edges.

c. Trimmed – Tubing cut to specific length.

d. Trimmed and Glazed – Tubing cut to length and fire-polished to heal sharp edges.

e. Cut and Ground – Tubing cut to length and ends ground.

Nomogram for Computing Relative Centrifugal Force (RCF)



All data subject to normal manufacturing variations

To calculate the RCF value at any point along the tube or bottle, measure the radius, in mm, from the center of the centrifuge spindle to the particular point. Draw a line from the radius value on the right-hand column to the appropriate centrifuge speed on the left-hand column.

The RCF value is the point where the line crosses the center column. The nomogram is based on the formula:

$RCF = (11.17 \times 10^{-7}) RN^2$

where:

R = Radius in mm from centrifuge spindle to point in tube bottom

N = Speed of spindle in RPM 125

NOTE: Tubes should not be spun in excess of 1500 x g.

Guide to Fritted Ware

Porosity

There are four different porosities of PYREX® brand fritted ware available, so that precipitates varying in size can be filtered at maximum speed with no sacrifice of retention. Porosity is controlled in manufacture, and discs are individually tested and graded into these classifications. The extra coarse and coarse porosities are held toward the maximum pore diameter as listed. The medium and fine are held toward the minimum pore diameter as listed.

The porosity for the pore diameter of the filter is determined in the same manner as specified in ASTM E-128 *Maximum Pore Diameter and Permeability of Rigid Porous Filters for Laboratory Use*.

Also, where the size of the piece permits, it is marked with the ASTM designation followed by the pore range in microns as shown in the column Nominal Maximum Pore Size (µm) (Table 1).

Coloration

The "whiteness" of various fritted products may vary slightly from piece to piece due to minor color variations in the batch mix. This color variation does not affect product filtration performance nor is it frit contamination.

Proper Care of Fritted Ware

Cleaning

A new fritted filter should be washed by suction with hot hydrochloric acid and then rinsed with water before it is used. This treatment will remove loose particles of foreign matter such as dust. It is advisable to clean all PYREX brand fritted filters as soon as possible after use. This will prolong their life.

Many precipitates can be removed from the filter surface simply by rinsing from the reverse side with water under pressure not exceeding 15 lbs./sq. in. Drawing water through the filter from the reverse side with a vacuum pump is also effective. Some precipitates tend to clog the pores of a fritted filter. Treatment here must be by chemical means. A few suggestions generally found to be useful are listed in Table 2.

Operating Pressures

Fritted glassware is designed primarily for vacuum filtration or for gas flow at relatively low pressures. If used for pressure work, the MAXIMUM differential on the disc should not exceed 15 pounds per square inch. Care should be taken when preparing sample solutions to avoid trapping air. If dissolved air is present, the flow rate may be reduced by up to 50%.

Thermal Limitations

The resistance to thermal shock of fritted ware is less than that of non-porous PYREX brand labware. Therefore, articles of fritted ware should not be subjected to excessive temperature changes or to direct flame.

Dry fritted crucibles at room temperature may be placed into a drying oven operating at 150°C.

Fritted ware may be safely heated in a furnace to 500°C without ill effect, provided that the cycle of heating and cooling is gradual.

Table 2. Cleaning Materials

Material	Cleaning Solution
Fatty materials	Carbon tetrachloride
Organic matter	Hot concentrated cleaning solution or hot concentrated sulfuric acid plus a few drops of sodium or potassium nitrite
Albumen	Hot ammonia or hot hydrochloric acid
Glucose	Hot mixed acid; H_2SO_4 + HNO_3
Copper or Iron Oxides	Hot hydrochloric acid plus potassium chlorate
Mercury Residue	Hot nitric acid
Silver Chloride	Ammonia or sodium hyposulfite
Viscose	5%-10% NaOH followed by cleaning solution
Aluminous and Siliceous Residues	2% hydrofluoric acid followed by concentrated sulfuric acid; rinse immediately with distilled water followed by a few mL of acetone. Repeat rinsing until all traces of acid are removed.

Table 1. Available Porosities

Porosity	Catalog Abbreviation	Nominal Maximum Pore Size (µm)	Principal Uses
Extra Coarse	E C	170-220	Filtration of very coarse materials. Gas dispersion, gas washing, extractor beds, support of other filter materials.
Coarse	C	40-60	Filtration of coarse materials. Gas dispersion, gas washing, gas absorption. Mercury filtration. Extraction apparatus.
Medium	M	10-15	Filtration of crystalline precipitates. Extraction apparatus. Removal of "floaters" from distilled water.
Fine	F	4-5.5	Filtration of fine precipitates. Mercury valve. Extraction apparatus.

The Use and Care of PYREXPLUS® Laboratory Glassware

PYREXPLUS® labware is designed to offer you additional safety and protection, plus extended product life, by coating the exterior surface with a PVC polymer.

Autoclaving

PYREXPLUS labware can be successfully sterilized using liquid or dry cycle sterilization which involves no vacuum or low vacuum (5 inches Hg).

Recommended cycles for automated autoclaves are:

	Autoclave Type	
Autoclave Cycle	**Gravity**	**Pre-vacuum**
Liquid	Yes	Yes
Dry	Yes	No
Pre-vac	–	No

CAUTION: Always autoclave vessels with loose caps or closures.

Sterilization time should not exceed 15 minutes at 121°C (250°F). Drying time should not exceed 15 minutes at 110°C (230°F). The actual cavity temperature of the autoclave should be checked to be sure the autoclave temperature does not exceed the recommended sterilization and drying temperature.

Autoclaving-Cloudiness

Should the coating appear clouded due to dissolved moisture, simply let dry overnight at room temperature or briefly heat to 110°C (230°F).

Cleaning

As is common practice, clean all glassware before use. Any non-abrasive glassware detergent may be used for hand or automatic dishwasher cleaning. If using a dishwasher or glassware dryer, care should be taken to be sure the drying temperature does not exceed 110°C (230°F). Exposure to dry heat should be minimized.

Avoid brushes and cleaning pads which could abrade the glass or damage the coating. If using a chromic acid cleaning solution, minimize contact of the solution with the coating.

Exposure to Chemicals

As with all PYREX® brand borosilicate glass labware, the PYREXPLUS vessel has excellent chemical inertness. The coating, however, is designed to resist leakage resulting from a brief chemical exposure that might occur if the vessel is broken. Prolonged and/or repeated chemical exposure of the coating to aldehydes, ketones, chlorinated solvents, and concentrated acids should be avoided.

Exposure to Cold

PYREXPLUS labware should not be exposed to temperatures below -20°C (-4°F). Extremely low temperatures may result in the coating becoming cracked. Exposure to temperatures below room temperature (23°C or 73°F) can temporarily reduce the ability of the coating to contain its contents if the vessel is broken.

Exposure to Heat

PYREXPLUS labware is designed to withstand the temperatures associated with steam sterilization. However, it should not be placed over direct heat or an open flame. Prolonged exposure to dry heat may also cause the coating to become brittle and thereby reduce the useful life of the vessel. A brown appearance or hardness to the touch are signs that the coating has become brittle.

The upper temperature limit for PYREXPLUS labware is 110°C (230°F). PYREXPLUS labware should not be exposed to elevated temperature in a vacuum greater than 5 inches Hg (127 mm Hg).

Exposure to Microwave

PYREXPLUS labware is completely microwave safe. However, as with any microwave vessel, be sure there is a load (water or other microwave absorbing material) in the microwave oven. Also, be sure all caps and closures are loosened.

Exposure to Ultraviolet

Prolonged and/or repeated exposure of the PYREXPLUS labware coating to direct sunlight or ultraviolet sources (such as sterilization lamps) is not recommended.

Exposure to Vacuum

PYREXPLUS containers (such as filter flasks and aspirator bottles) have demonstrated the ability to contain glass fragments upon implosion at room temperature. However, in keeping with safe laboratory practice, always use a safety shield around evacuated containers.

Labeling and Marking

Use water-based markers for temporary marking or labeling of the PYREXPLUS labware coating. Solvent-based markers, dyes, and stains cannot be removed from the coating.

NOTE: A slight “plastic” odor may be detected when handling PYREXPLUS labware. This is due to additives in the plastic coating which are responsible for its superior performance. The odor is normal and will not affect the inertness of the inside borosilicate glass surface.

General Use and Care Recommendations

- Proper care and handling of PYREXPLUS® labware or any labware will greatly increase its life and increase the safety of your work place.
- Do not place PYREXPLUS labware over direct heat or open flame.
- The recommended temperature use range for PYREXPLUS labware is 10°C to 80°C. Do not continuously expose PYREXPLUS labware to heat above 80°C.
- Do not expose to dry heat in a dishwasher above 110°C (230°F). Drying time should not exceed 15 minutes at 110°C (230°F).
- Do not autoclave above 121°C (250°F). Sterilizing time should not exceed 15 minutes.
- Do not refrigerate below -20°C (-4°F).
- Do not remove the protective coating. Do not use a vessel on which the coating is hardened, darkened or otherwise damaged.
- Do not use PYREXPLUS® labware to store hazardous chemicals below room temperature.
- Do not allow prolonged or repeated exposure of the coating to strong acids or solvents.
- Do not use a vessel once the glass is broken. Immediately transfer the contents of a broken vessel to an approved container and properly dispose of the broken vessel.
- Do not incinerate discarded vessels. Place in proper disposal containers.

Glass Terminology

Anneal: To prevent or remove objectionable stresses in glassware by controlled cooling.

Binder (Fibrous Glass): Substances employed to bond or hold the fibers together.

Blister: An imperfection, a relatively large bubble or gaseous inclusion.

Check: An imperfection. a surface crack in a glass article.

Chill Mark: A wrinkled surface condition on glassware, resulting from uneven contact in the mold prior to forming.

Chip: An imperfection due to breakage of a small fragment from an otherwise regular surface.

Cord: An unattenuated glass inclusion, possessing optical and other properties differing from those of the surrounding glass.

Cullet: Waste or broken glass, usually suitable as an addition to raw batch.

Devitrification: Crystallization in glass.

Dice: The more or less cubical fracture of tempered glass.

Fiber: An individual filament made by attenuating molten glass. A continuous filament is a glass fiber of great or indefinite length. A staple fiber is a glass fiber of relatively short length (generally less than 44 cm).

Fusion: Joining by heating.

Glass Ceramic: A material melted and formed as a glass, then converted largely to a crystalline form by processes of controlled devitrification.

I.D.: Inside diameter.

Lampworking: Forming glass articles from tubing and rod by heating in gas flame.

Lap: (1) An imperfection, a fold in the surface of a glass article caused by incorrect flaw during forming. (2) A process used for mating ground surfaces.

Liquidus Temperature: The maximum temperature at which an equilibrium exists between the molten glass and its primary crystalline phase.

Mat (Fibrous Glass): A layer of intertwined fibers bonded with some resinous material or other adhesive.

O.D.: Outside diameter.

Out-of-Round: Asymmetry in round glass articles.

Sealing: See Fusion.

Seed: An extremely small gaseous inclusion in glass.

Softening Point: The temperature at which a uniform fiber 0.5 mm to 1.0 mm in diameter and 22.9 cm in length elongates under its own weight at a rate of 1 mm per minute when the upper 10 cm of its length is heated in a prescribed furnace at the rate of approximately 5°C per minute. For a glass of density near 2.5, this temperature corresponds to viscosity of $10^{7.6}$ poises.

Standard Taper: $ is the symbol used to designate interchangeable glass joints, stoppers, and stopcocks complying with the requirements of ASTM E-676 and ASTM E-675. All mating parts are finished to a 1:10 taper.

$ is the designation for spherical (semi-ball) joints complying with ASTM E-677.

$ is the designation for tapered stopcocks using a fluorocarbon plug complying with ASTM E-911. All mating parts are finished to a 1:15 taper. The size of a particular piece appears after the appropriate symbol. Due primarily to the greater variety of apparatus equipped with fittings, a number of different types of identifications are used as follows:

- ***Joints:*** A two-part number, ⅋ 24/40, with 24 being the approximate diameter in mm at the large end of the taper, and 40 being the axial length of taper, also in mm.
- ***Stopcocks:*** A single number, ⅋ 2, with 2 being the approximate diameter in mm of the hole or holes through the plug.
- ***Bottles:*** A single number, ⅋ 19, with 19 being the approximate diameter in mm of the opening at the top of neck.
- ***Flasks:*** (Other than most boiling flasks) a single number, ⅋ 19, with 19 again being the approximate diameter in mm at top of neck. For dimensional details of the various stoppers, see the individual listings in Corning's general catalog of laboratory products.

The complete designation of a spherical joint also consists of a two-part number, ⅋ 12/2, with 12 being the approximate diameter in mm of the ball and 2 the bore in mm of the ball and the socket.

Finally, for the fluorocarbon plug, a single number is used as with ⅋ stopcocks. Thus ⅋ 2 means a stopcock with a hole of approximately 2 mm in the plug.

Stone: An imperfection; crystalline contaminations in glass.

Stria: A cord of low intensity, generally of interest only in optical glass.

Tempered Glass: Glass that has been rapidly cooled from near the softening point, under rigorous control, to increase its mechanical and thermal strength.

Thermal Endurance: The relative ability of glassware to withstand thermal shock.

Weathering: Attack of a glass surface by atmospheric elements.

Working Range: The range of surface temperature in which glass is formed into ware in a specific process. The "upper end" refers to the temperature at which the glass is ready for working generally corresponding to a viscosity of 10^3 to 10^4 poises. The "lower end" refers to the temperature at which it is sufficiently viscous to hold its formed shape, generally corresponding to a viscosity greater than 10^6 poises. For comparative purposes and when no specific process is considered, the working range of glass is assumed to correspond to a viscosity range from 10^4 to $10^{7.6}$ poises.

Glass Material Terms

Standards

Three organizations currently publish standards covering the composition properties and/or testing of glasses used in the laboratory. All are similar and, in some cases identical. These standards and Corning glasses are listed below:

- Federal Specification DD-G-541b and ASTM Standard E-438
- Type I, Class A Borosilicate – Code Nos. 7740 and 7789* Glass
- Type I, Class B Borosilicate – Code No. 7800 Glass
- *Type II, Soda Lime – Code No. 0071 Glass
- U.S. Pharmacopoeia Chemical Resistance – Glass Containers
- Type I highly resistant borosilicate – Code Nos. 7740, 7800, 7789, and 7799

Compositions

The information on composition is approximate percent by weight unless otherwise noted.

Properties

Annealing Point (Viscosity 10^{13} poises): The temperature at which the internal strains in glass are reduced to an acceptable limit in 15 minutes per ASTM C-336.

Coefficient of Expansion: ASTM E-228 measurement of average linear expansion for temperature changes between 0° and 300°C.

Density: Weight in grams of one cubic centimeter of glass.

Refractive Index: Measurement of the ratio between the velocity of light in air to velocity in glass.

Softening Point (Viscosity $10^{7.5}$ to 10^8 poises): The temperature at which glass will elongate under its own weight per ASTMC-338.

Strain Point (Viscosity $10^{14.5}$ poises): The temperature at which the internal stresses in glass are reduced to low values in approximately 4 hours.

Temperature Limits: Normal service is the temperature at which no breakage should occur. Extreme service is the maximum temperature limit of the glass. It will be prone to thermal failure if not in perfect condition.

Thermal Shock Limit: The maximum allowable difference in temperature between the temperature of the glass and the air, liquid or solid in contact with the glass. This figure is based on plunging an oven-heated 3.2 mm thick sample into cold water.

Transmittance: Graph showing the percent transmittance for wavelengths in the ultra-violet and visible ranges. Values are for thickness shown.

Youngs Modulus: The ASTM C-623 measurement of stress to strain ratio.

NOTE: The warnings which appear in this text apply only to specific products made from the glass compositions noted. These warnings are not all-inclusive. It is assumed that the user takes normal care and precautions while using the products.

*See Code. No. 7789 glass spec sheet for exception.

Properties of Components Used in Corning Products

Use and Care of Phenolic Caps

In order to minimize the likelihood of the liners coming out of caps, it is recommended that:

a. They be cleaned with hot water only, because detergents can attack the special nontoxic adhesive that holds them to the phenolic.

b. They not be applied to hot bottles, because a vacuum forms inside as the bottles cool and will pull the liners loose.

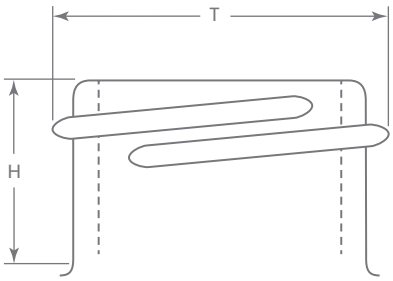
c. They not be subjected to dry heat which can destroy the liners; only steam autoclaving should be used and then not above 121°C.

Threaded Cap Information

Corning designed these screw caps for autoclaving, with heat-steam resistant resin. They are available with PTFE or white rubber liners. Disposable phenolic caps are available in bulk case pack quantities.

The Corning® cap(s) thread configuration complies with the current G.P.I. industry standard. G.P.I. refers to the "Glass Packaging Institute" which is responsible for maintaining current standards and issuing new uniform glass finishing standards to the market. G.P.I. formally replaced G.C.M.I. as the industry recognized standard.

Identification examples: 38-400 means that the diameter across the threads of the glass container are approximately 38 millimeters. The second number, 400 in this case, denotes the particular style of cap. All dimensions are approximate.



"T" Dimension (mm)	"H" Measurements (mm)			
	400	410	415	430
13			11.20	
15			13.90	
18	9.00	13.00	15.40	
20	9.50	13.80	18.50	
24	10.25	16.15	24.00	
28	10.25	17.75	27.20	
33	9.85			
38	9.85			
38*				22.0
40	10.25			

*Modified.

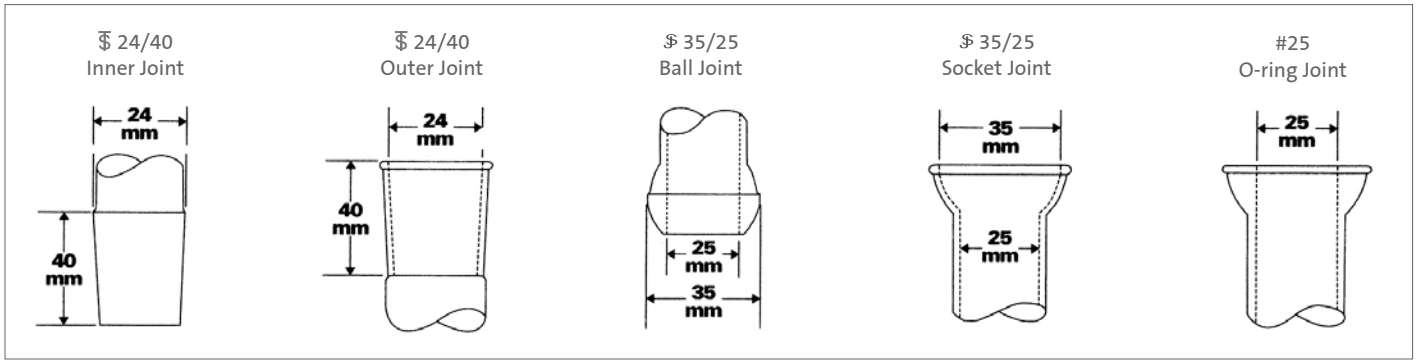
All caps should be closed "finger tight," gently compressing the inner liner for a leak-resistant fit. DO NOT over tighten; the glass threads on your applicable container may break if over-torqued.

Specifications for Joints, Threads, and Stopcocks

Standard Taper
Symbol used to designate interchangeable joints, stoppers, and stopcocks that comply with the requirements of Commercial Standard CS-21 published by N.I.S.T.

Spherical Joint
Symbol designates spherical joints that comply with CS-21.

Product Standard
Symbol designates stopcock plugs made of PTFE that meet requirements of N.I.S.T. Voluntary Product Standard PS 28-70.



Common Standard Laboratory Conversion Factors

Length

1 millimeter (mm)	0.1 centimeter (cm)
1 centimeter	0.01 meter (M)
1 centimeter	0.394 inch
1 inch	2.540 centimeters
1 meter	3.2808 feet
1 foot	0.305 meter

Area

1 square centimeter (cm)	0.1550 square inch
1 square inch	6.452 square centimeters
1 square meter (M)	10.764 square feet
1 square foot	0.09290 square meter

Mass

1 gram	0.03527 ounce (Avoirdupois)
1 ounce (Avoirdupois)	28.3495 grams
1 kilogram	2.20462 pound (Avoirdupois)
1 pound (Avoirdupois)	0.45359 kilogram

Volume

1 cubic centimeter	0.001 liter (L)
1 cubic centimeter	0.0610 cubic inch
1 cubic inch	16.3872 cubic centimeter
1 cubic meter	35.314 cubic feet
1 cubic foot	0.02832 cubic meter

Capacity

1 milliliter (mL)	0.03382 ounce (U.S. liquid)
1 ounce (U.S. liquid)	29.573 milliliters
1 liter (L)	1.05671 quarts (U.S. liquid)
1 quart (U.S. liquid)	0.94633 liter
1 liter	0.26418 gallon (U.S. liquid)
1 gallon (U.S. liquid)	3.78533 liter
1 lambda	0.001 cc/1 microliter

Power

1 watt	0.73756 foot-pound per second
1 foot-pound per second	1.3582 watts
1 watt	0.056884 BTU per minute
1 BTU per minute	17.580 watt
1 watt	0.001341 horsepower (U.S.)
1 horsepower (U.S.)	754.7 watts
1 watt	0.01433 kilogram-calorie per minute
1 kilogram-calorie per minute	69.767 watts

Temperature

°C = (°F – 32) x 5/9	
°F = 9/5 x °C + 32	

Catalog Number Series Index

Continued on next page

Catalog Number Series Index (continued)

Warranty/Disclaimer: Unless otherwise specified, all products are for research use or general laboratory use only.* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. *For a listing of US medical devices, regulatory classifications or specific information on claims, visit www.corning.com/resources.

Corning's products are not specifically designed and tested for diagnostic testing. Many Corning products, though not specific for diagnostic testing, can be used in the workflow and preparation of the test at the customers discretion. Customers may use these products to support their claims. We cannot make any claims or statements that our products are approved for diagnostic testing either directly or indirectly. The customer is responsible for any testing, validation, and/or regulatory submissions that may be required to support the safety and efficacy of their intended application.

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Corning Incorporated
Life Sciences

www.corning.com/lifesciences

NORTH AMERICA
t 800.492.1110
t 978.442.2200

ASIA/PACIFIC
Australia/New Zealand
t 61 427286832
Chinese Mainland
t 86 21 3338 4338
India
t 91 124 4604000
Japan
t 81 3-3586 1996
Korea
t 82 2-796-9500
Singapore
t 65 6572-9740
Taiwan
t 886 2-2716-0338

EUROPE
CSEurope@corning.com
France
t 0800 916 882
Germany
t 0800 101 1153
The Netherlands
t 020 655 79 28
United Kingdom
t 0800 376 8660
All Other European Countries
t +31 (0) 206 59 60 51

LATIN AMERICA
grupoLA@corning.com
Brazil
t 55 (11) 3089-7400
Mexico
t (52-81) 8158-8400