

# Corning® CoolRack® Modules

CORNING

Corning CoolRack thermo-conductive metal alloy tube modules reduce variability which originates from tubes or wells placed directly into ice, dry ice, alcohol baths, water baths, and other temperature sources.



## How It Works

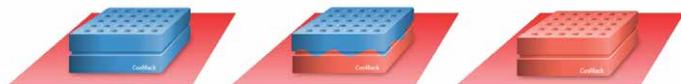
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### Cooling



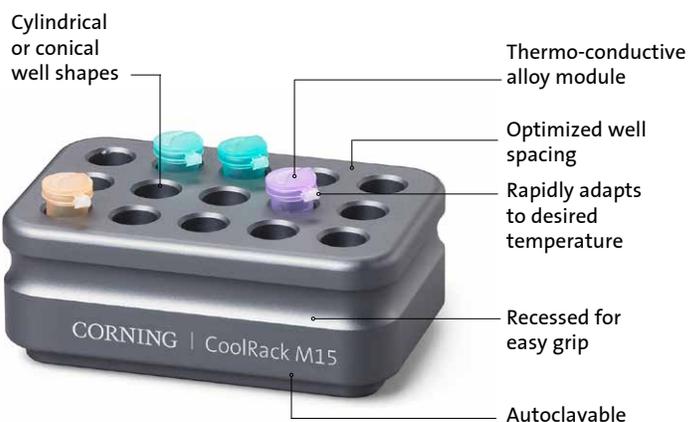
**Corning CoolRack on ice.** Heat from the warmer Corning CoolRack module is transferred to a cooling source (wet or dry ice, cartridge, LN<sub>2</sub>) until equilibrium is reached.

### Warming

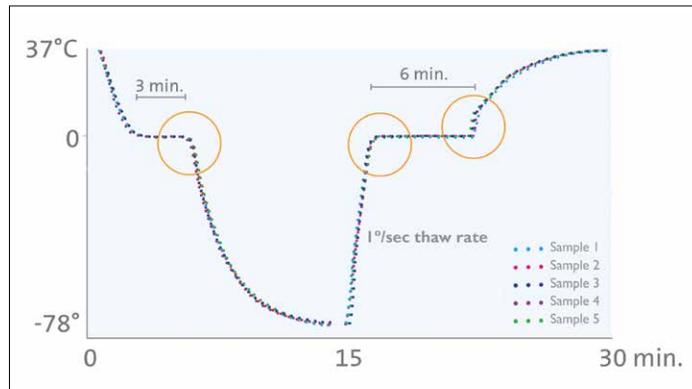


**Corning CoolRack in water bath.** Heat is transferred from water bath toward cooler Corning CoolRack until equilibrium is reached.

Corning CoolRack and Corning CoolSink® are precision-engineered sample modules manufactured from a novel thermo-conductive alloy material. Thermo-conductivity is the transfer of heat energy from a higher temperature region to a lower temperature region. CoolRack modules evenly distribute the temperature across all wells providing very uniform and consistent temperature to all samples ( $\pm 0.1^{\circ}\text{C}$ ).



## Corning® CoolRack® Reproducibility

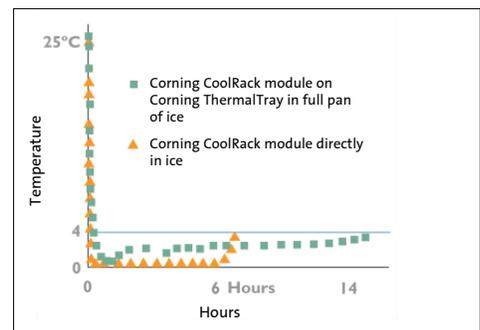


## Thermo-conductive Modules Versatility and Performance

### On Ice



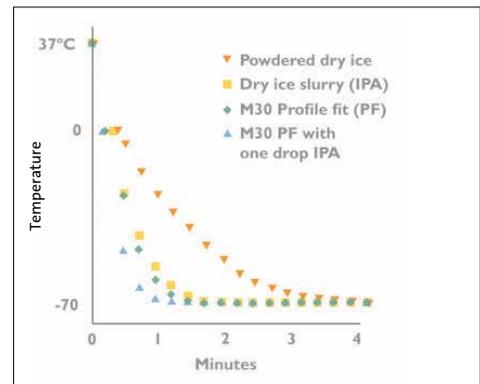
- Adapts from ambient (25°C) to <4°C in 60 to 90 seconds\*
- Samples and labels stay dry, organized
- Hours of ice cooling without direct ice contact
- Reproducible method



### On Dry Ice



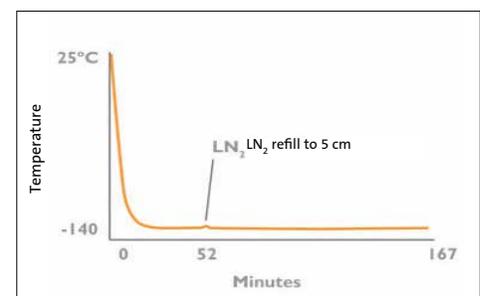
- Adapts from ambient (25°C) to -78°C in approximately 5 to 7 minutes\*
- Eliminates ethanol from snap freezing
- Samples are upright and organized as they freeze
- Equal or better freezing rate as compared to direct immersion into dry ice or alcohol slurry
- Reproducible method



### In Liquid Nitrogen (LN<sub>2</sub>)



- Adapts from ambient (25°C) to approximately -150°C in approximately 12 to 14 minutes\*
- Vapor barrier protects from ambient air
- Samples are upright and organized as they freeze
- No direct contact between samples and LN<sub>2</sub>
- Reproducible method



### With Heat Sources



- Use with water baths, incubators, and other heat sources to keep samples warm

\*Average cooling rate from room temperature.

## Ordering Information

### Corning® CoolRack® M Microcentrifuge Modules

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432034	CoolRack M6, gray	6	Cylindrical	6.0 x 4.3 x 3.8	11.1	32.7	17.8	17.8
432035	CoolRack M6, green							
432036	CoolRack M6, orange							
432037	CoolRack M15, gray	15	Cylindrical	10.2 x 6.4 x 3.8	11.1	32.7	17.8	17.8
432038	CoolRack M15, green							
432039	CoolRack M15, orange							
432047	CoolRack M15-PF	15	Conical	10.2 x 6.4 x 3.8	11.1	35.3	17.8	17.8
432040	CoolRack XT M24*	24	Cylindrical	12.8 x 8.5 x 3.8	11.1	32.7	17.8	17.8
432060	CoolRack XT 5 mL*	12	Conical	12.7 x 8.6 x 5.0	16.5	48.7	28.0	28.0
432041	CoolRack M30, gray	30	Cylindrical	12.0 x 10.2 x 3.8	11.1	32.7	17.8	17.8
432042	CoolRack M30, green							
432043	CoolRack M30, orange							
432048	CoolRack M30-PF	30	Conical	12.0 x 10.2 x 3.8	11.1	35.3	17.8	17.8
432046	CoolRack 500 µL M30-PF	30	Conical	12.0 x 10.2 x 3.8	11.1	35.3	17.8	17.8
432044	CoolRack M90	90	Cylindrical	26.8 x 11.2 x 3.8	11.1	32.7	17.8	17.8
432045	CoolRack M96 ID**	96	Cylindrical	25.4 x 15.2 x 3.8	11.1	32.7	17.8	17.8

\*SBS-compatible.

\*\*Corning CoolRack M96 ID has A-H and 1-12 row and column indexing.

### Corning CoolRack CF Cryogenic Vial and FACS Tube Modules

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432049	CoolRack CF15	15	Cylindrical	10.2 x 6.4 x 3.8	12.7	32.7	17.8	17.8
432050	CoolRack XT CFT24*†	24	Cylindrical	12.8 x 8.5 x 3.8	12.7	32.7	17.8	17.8
432052	CoolRack CFT30†	30	Cylindrical	12.0 x 10.2 x 3.8	12.7	32.7	17.8	17.8
432051	CoolRack CF45	45	Cylindrical	17.3 x 9.7 x 3.8	12.7	32.7	17.8	17.8

\*SBS-compatible.

† "Gripping" wells for one-hand vial opening/closing.

### Corning CoolRack PCR Microplate, Strip Tubes, or Tube Modules

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432053	CoolRack XT PCR96*	96	Tapered	12.7 x 8.6 x 2.5	—	13.2	9.0	9.0
432054	CoolRack XT M-PCR*	48 (PCR)	Tapered (PCR)	12.7 x 8.6 x 3.8	—	13.2	9.0	9.0
		12 (M)	Cylindrical (M)		11.1			
432055	CoolRack XT PCR384*	384	Tapered	12.7 x 8.6 x 1.9	—	7.6	4.5	4.5

\*SBS-compatible.

### Corning CoolRack 96 Storage Tube Modules

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432056	CoolRack 96 x 0.5 mL	96	Cylindrical	13.1 x 8.9 x 3.6	8.4	24.6	9.0	9.0
432057	CoolRack 96 x 1 mL	96	Cylindrical	13.2 x 8.9 x 3.6	8.3	32.7	14.0	17.8

### Corning CoolRack SV Sample Vial Modules for Cell Therapy

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432058	CoolRack SV2	12	Cylindrical	12.7 x 8.6 x 3.8	16.0	24.0	27.0	30.0
432059	CoolRack SV10	12	Cylindrical	12.7 x 8.6 x 3.8	23.6	27.9	25.9	32.1

## Ordering Information (Continued)

### Corning® CoolRack® – Tall Modules

Cat. No.	Description	No. of Wells	Well Shape	Dimensions (L x W x H) (cm)	Well Diameter (mm)	Well Depth (mm)	Row Spacing (mm)	Column Spacing (mm)
432068	CoolRack L*	12	Cylindrical	13.7 x 9.5 x 11.8	17.5	105.4	25.4	30.5
432061	CoolRack 15 mL	9	Cylindrical	8.9 x 8.9 x 10.7	17.1	106.7	26.7	26.7
432062	CoolRack 50 mL	4	Cylindrical	8.9 x 8.9 x 10.7	29.5	101.6	40.6	40.6
432063	CoolRack 250 mL-PF	1	Conical	8.9 x 8.9 x 14.0	60.4	133.3	–	–
432064	CoolRack 250 mL	1	Cylindrical	8.9 x 8.9 x 7.2	73.6	66.5	–	–
432069	CoolRack LV*	12	Cylindrical	13.7 x 9.5 x 9.6	16.6	83.3	25.4	30.5
432065	CoolRack VS13	9	Cylindrical	8.9 x 8.9 x 6.1	13.0	61.0	26.7	26.7
432067	CoolRack V13	9	Cylindrical	8.9 x 8.9 x 8.4	13.0	83.8	26.7	26.7
432066	CoolRack V16	9	Cylindrical	8.9 x 8.9 x 8.4	16.0	83.8	26.7	26.7

\*Thermo-conductive base and insulative exterior.



### Corning CoolRack® – Reagent Reservoir Modules

Cat. No.	Description	Dimensions (L x W x H) (cm)
432139	CoolRack LX 50*	13.7 x 9.5 x 11.8

\*Compatible with one Axygen® 50 mL disposable reagent reservoir (RES-V-50, RES-V-50-S, or RES-V-50-SI).

### Corning Cryogenic Vial Grippers

Cryogenic vial grippers feature a unique design to grasp internal or external-thread cryogenic vials. Grippers enable easy sorting and moving of vials while maintaining sterility and protecting fingers from frozen vials, dry ice, and liquid nitrogen.



Cat. No.	Description
432136	Cryogenic vial grippers, multi-color (5/cs)

Contact your Corning Account Manager for a copy of the Corning CoolBox™ and CoolRack Consumable Compatibility Guide.

For more specific information on claims, visit the Certificates page at [www.corning.com/lifesciences](http://www.corning.com/lifesciences).

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