

PYREX[®]

A Corning Brand

Corning[®] PYREX[®] Glass (SG3.3)

Corning[®] PYREX[®] Glass (SG3.3) is a borosilicate glass that matches the coefficient of thermal expansion of silicon. Among other purposes, it was engineered for anodic bonding applications in the semiconductor and electronics industries as a cover glass capable of withstanding high temperature and harsh environments. PYREX (SG3.3) offers consistent, bond-ready surfaces, without the need to distinguish one side from the other, enabling void-free, low stress bonding using industry-standard bonding equipment. The following data applies to a typical sample of PYREX (SG3.3).

Dimensions

Wafer*

Available thicknesses	0.3 – 2.3 mm
Diameter	100 – 300 mm
TTV	≤ 5 μm
Warp	≤ 50 μm

Panel*

Available thicknesses	0.5 – 2.3 mm
Width x Length	Up to 300 x 300 mm
TTV	≤ 10 μm
Warp	≤ 100 μm

*Customized specifications are available upon request

Full Sheet

Available thicknesses	2.0 mm, 3.8 mm
Thickness tolerance	± 0.2 mm
Width x Length	1700 x 1150 mm
Dimension tolerance	± 2 mm

Viscosity

Softening Point (10 ^{7.6} poises)	820°C
Annealing Point (10 ¹³ poises)	560°C
Strain Point (10 ^{14.5} poises)	510°C

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Properties

Density	2.23 g/cm ³
Young's Modulus	64 GPa
Poisson's Ratio	0.20
Knoop Hardness HK (0.1 /20)	480 kgf/mm ²
Log ₁₀ (Volume Resistivity) @ 250°C	8.0 Ω · cm
Dielectric Constant (1 MHz & 25°C)	4.6
Loss Tangent (1 MHz & 25°C)	0.0037
Coefficient of Thermal Expansion (RT to 300) °C	3.3 x 10 ⁻⁶ / °C
Thermal Conductivity (90°C)	1.2 W/m·K
Specific Heat (RT to 100 °C)	830 J/kg·K
Transmittance (400-800 nm)	>90%
Refractive Index (590 nm)	1.472
Abbe number, V _D	67

