

Product Information: CORNING® PYREX 7740

7/01

Glass Type — Borosilicate
Available in rolled sheet from 3/32" to 2-1/8" and in polished plate as specified

Mechanical	Metric	English
Density	2.23 g/cm ³	139.2 lb/ft ³
Young's Modulus	6.4 x 10 ³ kg/mm ²	9.1 x 10 ⁶ psi
Poisson's Ratio	0.20	
Shear Modulus	2.67 x 10 ³ kg/mm ²	3.8 x 10 ⁶ psi
Knoop Hardness (KHN ₁₀₀)	418	

Viscosity	Metric	English
Working Pt. (10 ⁴ poises)	1252°C	2286°F
Softening Pt. (10 ^{7.6} poises)	821°C	1510°F
Annealing Pt. (10 ¹³ poises)	560°C	1040°F
Strain Pt. (10 ¹⁴ poises)	510°C	950°F

Thermal	Metric	English
Coefficient of Expansion (0-300°C)	32.5 x 10 ⁻⁷ /°C	18.1 x 10 ⁻⁷ /°F
(25°C to Set Point 515°C)	35.0 x 10 ⁻⁷ /°C	19.5 x 10 ⁻⁷ /°F
Specific Heat, 25°C	0.18 cal/g°C	0.18 Btu/lb°F
Thermal Conductivity, 25°C	0.0027 $\frac{\text{cal cm}}{\text{sec cm}^2 \text{C}}$	0.63 $\frac{\text{Btu ft}}{\text{h ft}^2 \text{F}}$
Thermal Diffusivity, 25°C	0.0069 cm ² /sec	0.00107 in ² /sec

Optical	Metric
Refractive Index (589.3 nm)	1.474
Birefringence Constant	394 $\frac{\text{nm/cm}}{\text{kg/mm}^2}$
Transmission @ 440 nm	91.0%*
@ 560nm	91.8%*

* Through a sample thickness 1.0 mm

Electrical	Metric
Log ₁₀ Volume Resistivity @ 250°C	8.1 ohm-cm
@ 350°C	6.6 ohm-cm
Dielectric Constant @ 20°C; 1 MHz	4.6
Loss Tangent @ 20°C; 1 MHz	0.4%

Optical Data

Glass thickness: 2, 6, and 15 mm

