

Pyroceram® III

DESCRIPTION: *Glass Type:* glass ceramic *Color:* transparent *Forms Available:* rolled sheet

PRINCIPAL USES: Woodburning stove windows.

PROPERTIES:

Thermal

Coefficient of Expansion (200 - 700°C): $3.0 \times 10^{-7}/^{\circ}\text{C}$
 Specific Heat (25 - 100°C): 0.8 J/g°C
 Maximum Temperature for Continuous Use: 700°C
 Thermal Stress Resistance: ΔT max 700°C
 Thermal Shock Resistance: ΔT max 700°C

Optical

Refractive Index: 1.55
 ABBE number: 55.4
 UV Transmission: < 1% for wavelengths < 355 nm (3 mm Thickness)
 Photo elastic Coefficient: 3.11 Brewster

Mechanical

Density: 2.55 g/cm³ Young's Modulus: 9.43×10^3 kg/mm² Poisson's Ratio: 0.25 Knoop Hardness(1n): 705

Chemical

<i>Acid Resistance</i>	<i>Alkali Resistance</i>	<i>Hydrolic Resistance</i>
DIN 12116	ISO 695	ISO 719
Class 1	Class 1	Class 1

Electrical

<i>Dielectric Constant</i>	<i>Dissipation Factor</i>	<i>Resistivity: Log</i>
10 ² Hz 8.1	4.0 x 10 ⁻³	ρ (Ω x cm)
10 ⁴ Hz 7.5	17 x 10 ⁻³	6.8 @ 250°C; 5.4 @ 350°C; 2.7 @ 700°C;

Other

