

Specialty Glass Products Technical Reference Document

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Specialty Glass

SCHOTT Superwhite B 270[®] Flat Glass

Description

SCHOTT B 270[®] Superwhite is an ultra clear crown glass. It is produced by melting high purity raw materials and then made using the continuous draw process. This results in excellent transmission in the ultraviolet, visible, and infrared spectrums, and high surface quality without the need for post processing.

Features

- High transmission
- Excellent surface quality
- Can be thermally or chemically strengthened

Applications

- Large area LCD covers
- Cover panes for copying machines
- Front covers for oscillograph tubes
- Optical elements for light sensors
- Signal optics

Physical Properties

Mechanical

• Density (25°C) ρ	2.55 g/cm ³	159.2 lb/ft ³
• Young's Modulus E	71.5 kN/mm ²	10.4 Mpsi
• Poisson's Ratio μ	0.219	0.219
• Knoop Hardness HK _{0.1/20}	542	542
• Bending strength σ	29.3 kN/mm ²	4.2 Mpsi

Viscosity

• Softening Point (10 ^{7.6} poises)	724 °C	1335 °F
• Annealing Point (10 ¹³ poises)	541 °C	1006 °F
• Strain Point (10 ^{14.5} poises)	511 °C	991 °F

Thermal Expansion

• 0 – 300 °C (32 – 572 °F)	9.4 x 10 ⁻⁶ /K
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Optical

• Index of Refraction @	546nm	1.5252
	588nm	1.5231

Electrical

• Log ₁₀ Volume Resistivity:	
(250°C, 482°F)	1 x 10 ⁹ ohm*cm
(350°C, 662°F)	1.6 x 10 ⁷ ohm*cm

Dimensions

- Thicknesses: 0.9mm – 10mm
- Sizes: Up to 66" x 28"

