Specialty Glass Materials
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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/mm2	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:

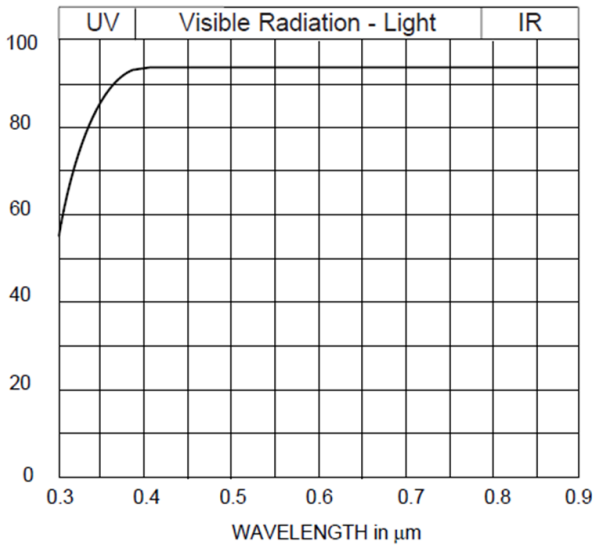
• 0 – 300°C (32 – 572°F)	9.4 x 10^{-6}/K

Optical:

• Index of Refraction @	546nm	1.5252
	588nm	1.5231

Electrical:
- Log10 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" (1676.4 x 711.2mm)



* **Crown glass** is a type of optical glass used in lenses and other optical components. It has relatively low refractive index (≈1.52) and low dispersion (with Abbe numbers around 60). Crown glass is produced from alkali-lime (RCH) silicates containing approximately 10% potassium oxide and is one of the earliest low dispersion glasses.