# SCHOTT Supermax<sup>®</sup> - Rolled Borosilicate

#### **Glass Fabrication**



**Coating Deposition** 



#### **CNC Machining**



#### **Strengthening - Chemical & Heat**



**Screen Printing of Graphics** 



Abrisa Technologies, a member of HEF Photonics, is a globally recognized technology glass fabrication and optical thin film coating company with expertise in high volume manufacturing and engineering capabilities, delivering Total Solutions that provide excellent performance, fitness-for-use and economies of scale.

Our US based, state-of-the-art ISO 9001:2015 and ITAR registered facilities include Abrisa Industrial Glass in Santa Paula, CA and ZC&R Coatings for Optics in Torrance CA. These two divisions produce solutions from cut-to-order coated glass components to custom complex and ready-to-install fabricated, strengthened, optically coated, electronically enabled and branded sub-assemblies.

Our Total Solutions serve a variety of markets including Micro-Electronics, Defense and Avionics, Display, Industrial Automation, Optical Sensors, Imaging, Photonics, Medical & Dental. Life Science and more.





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## SCHOTT Supermax<sup>®</sup> - Rolled Borosilicate

SCHOTT Supremax® Rolled Borosilicate is almost identical in its properties to Borofloat® 33, it has slightly lower surface quality due to the rolled process. It is a versatile borosilicate glass with excellent thermal properties, chemical resistance, and good light transmission material for its thickness. Supremax® Rolled Borosilicate also maintains a low density and therefore higher transmissivity compared to that of soda lime glass.

#### Features:

- Large Thickness Range
- Very Good Optical Properties
- Low Thermal Expansion
- High Chemical Durability
- Low Density

#### **Applications:**

- High temperature Windows for Lighting
- **Optical Windows, Filters & Mirrors**
- **Chemically Resistant View Ports**
- Bulletproof Glass Systems

#### **Dimensions:**

- Thicknesses: 28.6mm 66.7mm (11/8" 25/8")
- Sheet Sizes: Up to 90" 67"

### **Thermal Expansion:**

• 0 - 300°C (32 - 572°F ): 3.25 x 10<sup>-6</sup>/K

#### **Electrical Properties:**

Log 10 Volume Resistivity

- (250°C, 482°F): 8.0
- (350°C, 932°F): 6.5

## Your Total Solution Partner

#### **Mechanical Properties:**

Density (25°C)p	2.2 g/cm <sup>3</sup>	137.3 lb/ft <sup>3</sup>
Young's Modulus E	64 kN/mm <sup>2</sup>	9.28 Mpsi
Poisson's Ratio µ	0.2	0.2
Knoop Hardness	480	480
Bending strength $\sigma$	24MPa	3.63 x 10 <sup>3</sup> psi

## **Optical Properties:** (Index of Refraction @)

453.8 nm	1.4802	
479.9nm	1.4768	
546.1nm	1.4731	
589.3nm	1.4713	
643.8nm	1.4695	
656.3nm	1.4692	

### Viscosity:

Working Point (10 <sup>4</sup> poises)	1270°C	2318°F
Softening Point (10 <sup>7.6</sup> poises)	820°C	1508°F
Annealing Point (10 <sup>13</sup> poises)	560°C	1040°F
Strain Point (10 <sup>14.5</sup> poises)	518°C	964°F

## **SCHOTT Supermax Spectral Transmittance**



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