

## Schott N-BK7 Glass

Category : Ceramic , Glass

### Material Notes:

Information Provided by SCHOTT North America, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Schott-N-BK7-Glass.php](http://www.lookpolymers.com/polymer_Schott-N-BK7-Glass.php)

Physical Properties	Metric	English	Comments
Density	2.51 g/cc	0.0907 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	610	610	.1/20
Modulus of Elasticity	82.0 GPa	11900 ksi	
Poissons Ratio	0.206	0.206	
Shear Modulus	34.0 GPa	4930 ksi	calculated

Thermal Properties	Metric	English	Comments
CTE, linear	7.10 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	3.94 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature -30.0 - 70.0 $\text{Å}^\circ\text{C}$	@Temperature -22.0 - 158 $\text{Å}^\circ\text{F}$	
	8.30 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	4.61 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 - 300 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 572 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	0.858 J/g- $\text{Å}^\circ\text{C}$	0.205 BTU/lb- $\text{Å}^\circ\text{F}$	
Thermal Conductivity	1.114 W/m-K	7.731 BTU-in/hr-ft $\text{Å}^2$ - $\text{Å}^\circ\text{F}$	
Transformation Temperature, Tg	557 $\text{Å}^\circ\text{C}$	1030 $\text{Å}^\circ\text{F}$	

Optical Properties	Metric	English	Comments
Refractive Index	1.5168	1.5168	n <sub>d</sub>
	@Wavelength 587.6 nm	@Wavelength 587.6 nm	
	1.51872	1.51872	n <sub>e</sub>
	@Wavelength 546.1 nm	@Wavelength 546.1 nm	
	99.3 %	99.3 %	

Transmission Visible Optical Properties	Metric @Thickness 10.0 mm, Wavelength 380 nm	English @Thickness 0.394 in, Wavelength 380 nm	Comments
	99.7 %	99.7 %	
	@Thickness 10.0 mm, Wavelength 405 nm	@Thickness 0.394 in, Wavelength 405 nm	
	99.7 %	99.7 %	
	@Thickness 10.0 mm, Wavelength 460 nm	@Thickness 0.394 in, Wavelength 460 nm	
	99.8 %	99.8 %	
	@Thickness 10.0 mm, Wavelength 580 nm	@Thickness 0.394 in, Wavelength 580 nm	
	99.8 %	99.8 %	
	@Thickness 10.0 mm, Wavelength 700 nm	@Thickness 0.394 in, Wavelength 700 nm	
IR Transmittance	66.5 %	66.5 %	
	@Thickness 10.0 mm, Wavelength 2500 nm	@Thickness 0.394 in, Wavelength 2500 nm	
	99.2 %	99.2 %	
	@Thickness 10.0 mm, Wavelength 1530 nm	@Thickness 0.394 in, Wavelength 1530 nm	
UV Transmittance	6.3 %	6.3 %	
	@Thickness 10.0 mm, Wavelength 290 nm	@Thickness 0.394 in, Wavelength 290 nm	
	29.2 %	29.2 %	
	@Thickness 10.0 mm, Wavelength 300 nm	@Thickness 0.394 in, Wavelength 300 nm	
	90.5 %	90.5 %	
	@Thickness 10.0 mm, Wavelength 334 nm	@Thickness 0.394 in, Wavelength 334 nm	
	99.1 %	99.1 %	
	@Thickness 10.0 mm, Wavelength 370 nm	@Thickness 0.394 in, Wavelength 370 nm	

Chemical Properties	Metric	English	Comments
Acid Class, SR	1.0	1.0	
Alkali Class, AR	2.3	2.3	
Stain Resistance Class, FR	0.00	0.00	

Descriptive Properties	Value	Comments
B	0	
Climatic Resistance Test CR	1	
HG	3	
K (10-6mm <sup>2</sup> /N)	2.77	
Phosphate Resistance PR	2.3	
T1013.0 (Å°C)	557	
T107.6 (Å°C)	719	

## Contact Songhan Plastic Technology Co.,Ltd.

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