

Schott N-PK51 Glass

Category : Ceramic , Glass

Material Notes:

Suitable for precision molding Information Provided by SCHOTT North America, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Schott-N-PK51-Glass.php

Physical Properties	Metric	English	Comments
Density	3.86 g/cc	0.139 lb/in ³	

Mechanical Properties	Metric	English	Comments
Knoop Microhardness	415	415	.1/20
Modulus of Elasticity	74.0 GPa	10700 ksi	
Poissons Ratio	0.295	0.295	
Shear Modulus	29.0 GPa	4210 ksi	calculated

Thermal Properties	Metric	English	Comments
CTE, linear	12.4 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	6.89 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature -30.0 - 70.0 $\text{Å}^\circ\text{C}$	@Temperature -22.0 - 158 $\text{Å}^\circ\text{F}$	
	14.1 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	7.83 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 - 300 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 572 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	0.620 J/g- $\text{Å}^\circ\text{C}$	0.148 BTU/lb- $\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.650 W/m-K	4.51 BTU-in/hr-ft Å^2 - $\text{Å}^\circ\text{F}$	
Transformation Temperature, Tg	487 $\text{Å}^\circ\text{C}$	909 $\text{Å}^\circ\text{F}$	

Optical Properties	Metric	English	Comments
Refractive Index	1.52855	1.52855	n_{d}
	@Wavelength 587.6 nm	@Wavelength 587.6 nm	
	1.53019	1.53019	n_{e}
	@Wavelength 546.1 nm	@Wavelength 546.1 nm	
	98.9 %	98.9 %	

Transmission Visible Optical Properties	Metric @Thickness 10.0 mm, Wavelength 380 nm	English @Thickness 0.394 in, Wavelength 380 nm	Comments
	99.4 %	99.4 %	
	@Thickness 10.0 mm, Wavelength 405 nm	@Thickness 0.394 in, Wavelength 405 nm	
	99.5 %	99.5 %	
	@Thickness 10.0 mm, Wavelength 460 nm	@Thickness 0.394 in, Wavelength 460 nm	
	99.7 %	99.7 %	
	@Thickness 10.0 mm, Wavelength 700 nm	@Thickness 0.394 in, Wavelength 700 nm	
	99.8 %	99.8 %	
	@Thickness 10.0 mm, Wavelength 580 nm	@Thickness 0.394 in, Wavelength 580 nm	
IR Transmittance	91.9 %	91.9 %	
	@Thickness 10.0 mm, Wavelength 2500 nm	@Thickness 0.394 in, Wavelength 2500 nm	
	99.4 %	99.4 %	
	@Thickness 10.0 mm, Wavelength 1530 nm	@Thickness 0.394 in, Wavelength 1530 nm	
UV Transmittance	0.10 %	0.10 %	
	@Thickness 10.0 mm, Wavelength 270 nm	@Thickness 0.394 in, Wavelength 270 nm	
	20.9 %	20.9 %	
	@Thickness 10.0 mm, Wavelength 300 nm	@Thickness 0.394 in, Wavelength 300 nm	
	81.5 %	81.5 %	
	@Thickness 10.0 mm, Wavelength 334 nm	@Thickness 0.394 in, Wavelength 334 nm	
	98.2 %	98.2 %	
	@Thickness 10.0 mm, Wavelength 370 nm	@Thickness 0.394 in, Wavelength 370 nm	

Chemical Properties	Metric	English	Comments
Acid Class, SR	52.3	52.3	
Alkali Class, AR	3.3	3.3	
Stain Resistance Class, FR	0.00	0.00	

Descriptive Properties	Value	Comments
B	1	
Climatic Resistance Test CR	1	
HG	6	
K (10-6mm ² /N)	0.54	
Phosphate Resistance PR	4.3	
T1013.0 (Å°C)	488	
T107.6 (Å°C)	568	

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