

Mateck Window Grade Zinc Selenide, ZnSe

Category : Ceramic , Sulfide/Chalcogenide , Other Engineering Material , Semiconductor

Material Notes:

Optical Crystals

Order this product through the following link:

http://www.lookpolymers.com/polymer_Mateck-Window-Grade-Zinc-Selenide-ZnSe.php

Physical Properties	Metric	English	Comments
Density	5.26 g/cc	0.190 lb/in ³	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Solubility	0.00 ppm	0.00 ppm	
a Lattice Constant	5.668 Å	5.668 Å	
Molecular Weight	144.33 g/mol	144.33 g/mol	

Mechanical Properties	Metric	English	Comments
Vickers Microhardness	1000	1000	MPa
Hardness, Mohs	4.0	4.0	
Modulus of Elasticity	77.6 GPa	11300 ksi	
Poissons Ratio	0.311	0.311	
Shear Modulus	29.6 GPa	4290 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	7.90 µm/m-°C	4.39 µin/in-°F	
	@Temperature 27.0 °C	@Temperature 80.6 °F	
Specific Heat Capacity	0.367 J/g-°C	0.0877 BTU/lb-°F	
Thermal Conductivity	14.1 W/m-K	97.9 BTU-in/hr-ft ² -°F	
Melting Point	1505 - 1535 °C	2741 - 2795 °F	

Optical Properties	Metric	English	Comments
Refractive Index	2.4034	2.4034	at n10.6
	2.6645	2.6645	at ne
	1.3936	1.3936	

Optical Properties	Metric	English	Comments
	@Wavelength 12000 nm	@Wavelength 12000 nm	
	2.3662	2.3662	
	@Wavelength 15000 nm	@Wavelength 15000 nm	
	2.4067	2.4067	
	@Wavelength 10000 nm	@Wavelength 10000 nm	
	2.4376	2.4376	
	@Wavelength 3000 nm	@Wavelength 3000 nm	
	2.4894	2.4894	
	@Wavelength 1000 nm	@Wavelength 1000 nm	
Transmission, Visible	65 %	65 %	Internal Transmittance
	@Wavelength 500 nm	@Wavelength 500 nm	
IR Transmittance	16 %	16 %	Internal Transmittance
	@Wavelength 20000 nm	@Wavelength 20000 nm	
	90 %	90 %	Internal Transmittance
	@Wavelength 15000 nm	@Wavelength 15000 nm	
	97 %	97 %	Internal Transmittance
	@Wavelength 5000 nm	@Wavelength 5000 nm	
	98 %	98 %	Internal Transmittance
	@Wavelength 12000 nm	@Wavelength 12000 nm	

Descriptive Properties	Value	Comments
Symmetry Class	43m	
Syngony	cubic	
Thermal Coefficient of Refractive Index	6E-5 to 6.63E-5	at 3.39 microns for ± 60°C
Thermal Stability, °C	57±7	
Transmission Range (microns)	0.55 - 18	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China