

## Mateck Fused Silica UV-VIS Grade (SiO<sub>2</sub>)

Category : Ceramic , Oxide , Silicon Oxide

### Material Notes:

Optical crystals

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Mateck-Fused-Silica-UV-VIS-Grade-SiO2.php](http://www.lookpolymers.com/polymer_Mateck-Fused-Silica-UV-VIS-Grade-SiO2.php)

Physical Properties	Metric	English	Comments
Density	2.21 g/cc	0.0798 lb/in <sup>3</sup>	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Solubility	0.00 ppm	0.00 ppm	

Mechanical Properties	Metric	English	Comments
Modulus of Elasticity	73.6 GPa	10700 ksi	
Poissons Ratio	0.17	0.17	
Shear Modulus	31.4 GPa	4550 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	4.00 Åµm/m-Å°C	2.22 Åµin/in-Å°F	
	@Temperature -50.0 - 50.0 Å°C	@Temperature -58.0 - 122 Å°F	
Specific Heat Capacity	0.728 J/g-Å°C	0.174 BTU/lb-Å°F	
Thermal Conductivity	1.35 W/m-K	9.37 BTU-in/hr-ftÅ²- Å°F	
	@Temperature 20.0 Å°C	@Temperature 68.0 Å°F	
Melting Point	1900 Å°C	3450 Å°F	

Optical Properties	Metric	English	Comments
Refractive Index	1.4584	1.4584	at nd
	1.4601	1.4601	at ne
	1.4131	1.4131	
	@Wavelength 3243.9 nm	@Wavelength 3243.9 nm	
	1.4494	1.4494	

Optical Properties	Metric	English	Comments
	1.4696	1.4696	
	@Wavelength 1083 nm	@Wavelength 1083 nm	
	1.4696	1.4696	
	@Wavelength 404.6 nm	@Wavelength 404.6 nm	
	1.615	1.615	
	@Wavelength 170 nm	@Wavelength 170 nm	
Transmission, Visible	99.9 %	99.9 %	Internal Transmittance
	@Wavelength 400 nm	@Wavelength 400 nm	
IR Transmittance	0.00 %	0.00 %	Internal Transmittance
	@Wavelength 2720 nm	@Wavelength 2720 nm	
	29.5 %	29.5 %	Internal Transmittance
	@Wavelength 2900 nm	@Wavelength 2900 nm	
	58 %	58 %	Internal Transmittance
	@Wavelength 2200 nm	@Wavelength 2200 nm	
	67 %	67 %	Internal Transmittance
	@Wavelength 3000 nm	@Wavelength 3000 nm	
	79 %	79 %	Internal Transmittance
	@Wavelength 2500 nm	@Wavelength 2500 nm	
	88 %	88 %	Internal Transmittance
	@Wavelength 2300 nm	@Wavelength 2300 nm	
	95 %	95 %	Internal Transmittance
	@Wavelength 2380 nm	@Wavelength 2380 nm	
	99.9 %	99.9 %	Internal Transmittance
	@Wavelength 2000 nm	@Wavelength 2000 nm	
UV Transmittance	63 %	63 %	Internal Transmittance
	@Wavelength 170 nm	@Wavelength 170 nm	
	96 %	96 %	Internal Transmittance
	@Wavelength 200 nm	@Wavelength 200 nm	

Descriptive Properties	Value	Comments
Thermal Coefficient of Refractive Index	1E-05	at nc microns for +20Å°C
Transmission Range (microns)	0.18 - 3.5	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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