

Fused Silica UV Grade(SiO₂)



Fused Silica is commonly used in applications from the Ultraviolet (UV) through the Near-Infrared (NIR). The low refractive index and low coefficient of thermal expansion characteristics of fused silica make it an ideal choice for laser applications.

OPTICAL

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|--|----------|
| Transmission Range, μm | 0.18-2.1 |
| Refractive Index at 0.5876 μm | 1.4585 |

THERMAL

| | |
|--|----------------------|
| Melting Point [deg C] | 1900 |
| Thermal Conductivity, [W/(m \times deg C)] | 1.35 |
| Thermal Expansion [deg C ⁻¹] | 4.0×10^{-6} |
| Specific Heat Capacity [J/(kg \times deg C)] | 0.728×10^3 |

MECHANICAL

| | |
|-----------------------------|------|
| Density[g/cm ³] | 2.21 |
| Young's Modulus [GPa] | 7.36 |
| Shear Modulus[GPa] | 3.14 |
| Poisson Coefficient | 0.17 |

CHEMICAL

| | |
|---------------------|-----------|
| Solubility in water | Insoluble |
|---------------------|-----------|

REFRACTIVE INDEXEX

| Wavelength(μm) | Index |
|-----------------------------|--------|
| 0.1850 | 1.575 |
| 0.2144 | 1.5337 |
| 0.2803 | 1.4940 |
| 0.3650 | 1.4745 |
| 0.4358 | 1.4666 |
| 0.5876 | 1.4585 |
| 0.6438 | 1.4567 |
| 0.8621 | 1.4525 |
| 1.3950 | 1.4458 |
| 1.7091 | 1.4421 |
| 2.0581 | 1.4372 |

Uncoated UV Fused Silica

