

Optical Material

Fused Silica (SiO₂) IR & UV Grade Optical Crystals

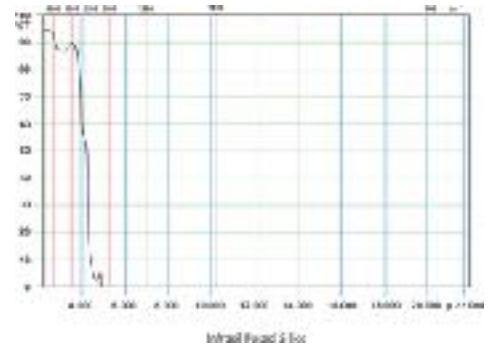
The UV grades are sold under several trade names including Suprasil. This material is sometimes referred to by the misnomer crystal quartz. Synthetic crystal quartz is bi-refringent and its applications differ from those of fused silica. The UV grade of this material is useful for UV applications, which include spectroscopy cuvettes and applications at 1064nm such as YAG laser protective windows.

Optical Properties - Fused Silica (SiO₂) IR Grade

Transmission Range: 250nm to 3.5 μ m
Refractive Index: 1.50 @ 260nm, 1.40 @ 3.7 μ m

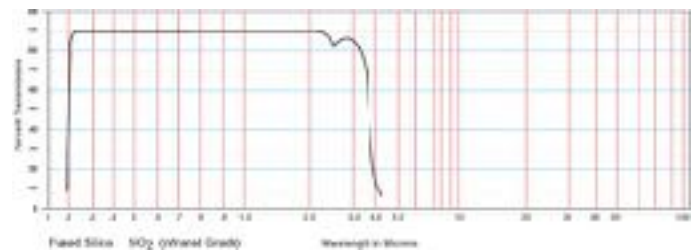
Physical Properties-- Fused Silica (SiO₂) IR Grade

Hardness (Knoop): 460 kg/mm²
Apparent Elastic Limit: 7200 psi
Modulus of Rupture: 7100 psi
Structure: Amorphous



Chemical Properties - Fused Silica (SiO₂) IR Grade

Solubility: Insoluble in water. Soluble in HF.



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