

KU-1

Ultraviolet Grade Synthetic Fused Silica

Refractive Index	$n_f(486\text{nm}) = 1.4631$; $n_d(588\text{nm}) = 1.4585$; $n_c(656\text{nm}) = 1.4564$
Birefringence Constant	$3.54 \text{ (nm/cm)/(kg/cm}^2\text{)}$
Abbe Constant	67.8
Bubbles/Inclusions	none
Fluorescence Virtually	fluorescence free
Impurity Content Total metallic impurities:	approx 5 ppm
OH ⁻ Content	> 1000 ppm
Density	2.201 g/cm^3
Coef of Expansion	$0.55 \times 10^{-6} / ^\circ\text{C}$
Softening Point	1600°C (2912°F)
Annealing Point	1120°C (2048°F)
Strain Point	1025°C (1877°F)
Max. Service Temp	950°C (1742°F) - continuous, 1200°C (2192°F) - limited time
Dielectric Strength	250-400 kV/cm at 20°C
Chemical Stability	High resistance to water & acids (except HF)
Young's Modulus	73 GPa at 25°C
Shear Modulus	31 GPa at 25°C
Rupture Modulus	50 MPa at 25°C
Bulk Modulus	36.9 GPa at 25°C
Poisson Ratio	0.17 at 25°C
Knoop Hardness	500 kg/mm^2
Compressive Strength	1.1 GPa
Tensile Strength	50 MPa