

QUARTZ / FUSED SILICA

GE-124

Applications

Wafer Carriers
Flanges
Optical Plates
Test Plates
Pressure Windows

Features

Excellent Thermal Properties Same CTE as 7940
Low Cost Option For Commercial Applications
Very Good Ultraviolet, Visible and Infrared Transmission
Contains Numerous Bubbles
Up to 36" Diameter, up to 4" Thick

PROPERTIES OF FUSED SILICA (at approx. 20 °C)

	Units	Value
General		
Chemical Formula		SiO ₂
Optical		
Index of refraction (at 589.3nm)		1.458
Mechanical		
Density	g/cm ³	2.203
Compressive Strength	kg/cm ²	1.13 x 10 ⁴
Young Modulus	kg/cm ²	7.45 x 10 ⁶
Flexural Strength	kg/cm ²	680
Tensile Strength	kg/cm ²	500
Poisson's Ratio		0.17
Hardness	mohs	5.5-6.5
Electrical		
Dielectric Strength	kv/cm	250-400 @ 20°C 150-200 @ 500°C
Dielectric Constant (0-1Mhz)	0-1Mhz	3.70
Volume Resistivity	Ω/cm	1 x 10 ¹⁸
Thermal		
Maximum Temperature (continous)	°C	950/1000
Softening Point	°C	1600
Coefficient of Expansion (0°-300°C)	cm°C	5.9 x 10 ⁻⁷
Conductivity	cal•cm	0.0033
Specific Heat (0°-100°C)	cal/g°C	0.18

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TRANSMISSION OF FUSED SILICA

