Quartz/Fused Silica
Corning® 7980 Fused Silica

Description:
Corning® 7980 is a very pure, non-crystalline silica glass. It features very low thermal expansion and excellent optical qualities, including very high transmission in the UV spectrum.

Features:
- Excellent optical properties
- Low thermal expansion
- High UV transmission

Applications:
- Optical windows
- High temperature view ports

Physical Properties:

Mechanical:
- Density (25°C) \( \rho \): 2.201 g/cm\(^3\), 137.4 lb/ft\(^3\)
- Young's Modulus \( E \): 72.7 GPa, 10.5 Mpsi
- Poisson's Ratio \( \mu \): 0.16
- Knoop Hardness HK0.1/20: 522 kg/mm\(^2\)
- Shear Modulus: 31.4 GPa, 4.55 Mpsi

Viscosity:
- Softening Point (10\(^{7.6}\) poises): 1585°C, 2885°F
- Annealing Point (10\(^{13}\) poises): 1042°C, 1908°F
- Strain Point (10\(^{14.5}\) poises): 893°C, 1639°F

Thermal Expansion:
- 0 – 200°C (32 – 392°F): 5.7 \times 10^{-7}°/°C

Optical:
- Index of Refraction @ 589.3nm: 1.45840

Electrical:
- Log10 Volume Resistivity: (250°C, 482°F): 11.8 ohm*cm

Dimensions:
- Thicknesses: 1.6mm
- Sizes: Up to 6.5" x 6.5" (165.1 x 165.1")

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