**Mechanical Property** | **Typical Values**
--- | ---
Density | $2.2 \times 10^3$ kg/m$^3$
Hardness | 5.5 - 6.5 Mohs' Scale 570 KHN
Design Tensile Strength | $4.8 \times 10^7$ Pa (N/m$^2$) (7000 psi)
Design Compressive Strength | Greater than $1.1 \times 10^9$ Pa (160,000 psi)
Bulk Modulus | $3.7 \times 10^9$ Pa (5.3 x 10$^6$ psi)
Rigidity Modulus | $3.1 \times 10^9$ Pa (4.5 x 10$^6$ psi)
Young's Modulus | $7.2 \times 10^9$ Pa (10.5 x 10$^6$ psi)
Poisson's Ratio | .17
Coefficient of Thermal Expansion | $5.5 \times 10^{-7}$ cm/cm • °C
Thermal Conductivity (20°C) | 1.4 W/m • °C
Specific Heat (20°C) | 670 J/kg • °C
Softening Point | 1683 °C
Annealing Point | 1215 °C
Strain Point | 1120 °C
Electrical Resistivity (350°C) | 7 $\times 10^7$ ohm cm
Dielectric Properties | (20°C and 1 MHz)
  - Constant | 3.75
  - Strength | $5 \times 10^1$ V/m
  - Loss Factor | Less than $4 \times 10^{-4}$
  - Dissipation Factor | Less than $1 \times 10^{-4}$
Index of Refraction | 1.46
Constringence (Nu value) | 67.56
Velocity of Sound-Shear Wave | $3.75 \times 10^3$ m/s
Velocity of Sound/Compression Wave | $5.90 \times 10^3$ m/s
Sonic Attenuation | Less than 11 db/m MHz
Permeability Constants (700°C) | (cm$^3$ mm/cm$^2$ sec. Cm of HG)
  - Helium | $210 \times 10^{-10}$
  - Hydrogen | $21 \times 10^{-10}$
  - Deutrium | $17 \times 10^{-10}$
  - Neon | $9.5 \times 10^{-10}$
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Resistance</td>
<td>(0.7 \times 10^{7} ) ohm-cm at 350°C</td>
</tr>
<tr>
<td>Dielectric Loss Factor</td>
<td>Less than 0.0004 at 20°C, 1 MHz</td>
</tr>
<tr>
<td>Dielectric Constant</td>
<td>3.75 at 20°C, 1 MHz</td>
</tr>
<tr>
<td>Specific Resistivity</td>
<td>(10^{18} ) ohm/cm at 20°C</td>
</tr>
<tr>
<td>Dissipation Factor</td>
<td>Less than 0.0001 at 20°C, 1 MHz</td>
</tr>
</tbody>
</table>