



DATA SHEET

QUARTZ ROD

Quartz Rod

Typical Trace Element Composition

(ppm by weight; analysis via Direct Reading Spectrometer)

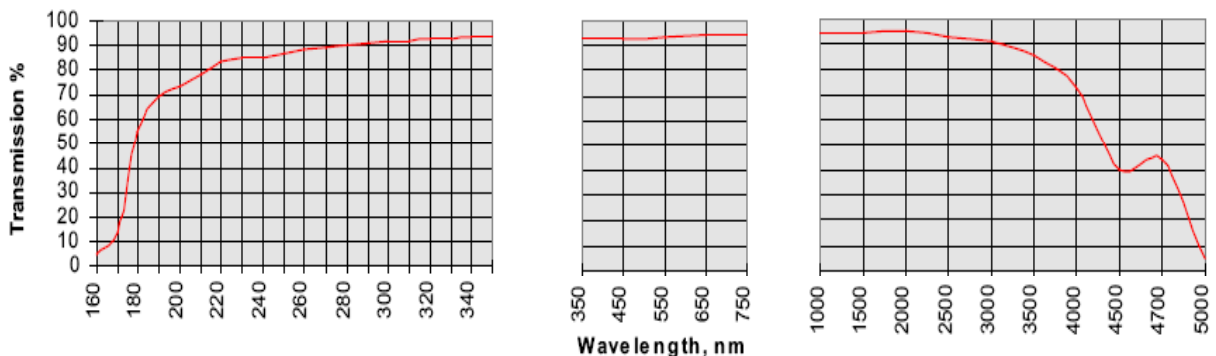
Al	As	B	Ca	Cd	Cr	Cu	Fe	K	Li	Mg	Mn	Na	Ni	P	Sb	Ti	Zr	OH
14	<0.002	<0.2	0.4	<0.01	<0.05	<0.05	0.2	0.6	0.6	0.1	<0.05	0.7	<0.1	<0.2	<0.003	1.1	0.8	10

Typical Physical Properties

<p>Mechanical Density 2.2×10^3 kg/m³ Hardness 5.5 - 6.5 Mohs' scale; 570 KHN₁₀₀ Design Tensile Strength 4.8×10^7 Pa (N/m²); 7000psi Design Compressive Strength $>1.1 \times 10^9$ Pa; 160,000psi Bulk Modulus 3.7×10^{10} Pa; 5.3×10^6 psi Rigidity Modulus 3.1×10^{10} Pa; 4.5×10^6 psi Young's Modulus 7.2×10^{10} Pa; 10.5×10^6 psi Poisson's Ratio 0.17</p>	<p>Thermal Coeff. of exp. (20 - 320 °C) 5.5×10^{-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</p>	<p>Electrical Electrical Resistivity (350 °C) 7×10^7 ohm cm Dielectric Constant (20 °C and 1MHz) 3.75 Dielectric Strength (20 °C and 1MHz) 5×10^7 V/m Dielectric Loss Factor (20 °C and 1MHz) $< 4 \times 10^{-4}$ Dissipation Factor (20 °C and 1MHz) $< 1 \times 10^{-4}$ Index of Refraction 1.4585</p>
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Average Transmission

(based on 1mm thickness; includes surface loss reflection)



WHILE EVERY ATTEMPT HAS BEEN MADE TO VERIFY THE SOURCE OF THE INFORMATION, NO RESPONSIBILITY IS ACCEPTED FOR ACCURACY OF DATA.

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