Subject	Typical Properties for Fused Quartz (Type 021 & Type 214)			
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Mechanical Property	***Typical Values***
Density	2.2 x 10^3 kg/m^3
Hardness	5.5 - 6.5 Mohs' Scale 570 KHN $_{100}$
Design Tensile Strength	4.8 x 10^7 Pa (N/m^2) (7000 psi)
Design Compressive Strength	Greater than 1.1 x 10^9 Pa (160,000 psi)
Bulk Modulus	3.7 x 10^{10} Pa (5.3 x 10^6 psi)
Rigidity Modulus	3.1 x 10^{10} Pa (4.5 x 10^6 psi)
Young's Modulus	7.2 x 10^{10} Pa (10.5 x 10^6 psi)
Poisson's Ratio	.17
Coefficient of Thermal Expansion (20℃ - 320℃)	5.5 x 10^{-7} cm/cm • ℃
Thermal Conductivity (20℃)	1.4 W/m • ℃
Specific Heat (20℃)	670 J/kg • ℃
Softening Point	1683 ℃
Annealing Point	1215 ℃
Strain Point	1120 ℃
Electrical Resistivity (350℃)	7 x 10^7 ohm cm
Dielectric Properties (20℃ and 1 MHz)	
Constant	3.75
Strength	5 x 10^7 V/m
Loss Factor	Less than 4 x 10^{-4}
Dissipation Factor	Less than 1 x 10^{-4}
Index of Refraction	1.46
Constringence (Nu value)	67.56
Velocity of Sound-Shear Wave	3.75 x 10^3 m/s
Velocity of Sound/Compression Wave	5.90 x 10^3 m/s
Sonic Attentuation	Less than 11 db/m MHz
Permeability Constants (700℃)	(cm^3 mm/cm^2 sec. Cm of HG)
Helium	210 x 10^{-10}
Hydrogen	21 x 10^{-10}
Deutrium	17 x 10^{-10}
Neon	9.5 x 10^{-10}

Typical Electrical Property Values for Clear Fused Quartz	
Electrical Resistance	.7 x 10^{9} ohm-cm at 350℃
Dielectric Loss Factor	Less than .0004 at 20℃, 1 MHz
Dielectric Constant	3.75 at 20℃, 1 MHz
Specific Resistivity	10^{18} ohm/cm^{3} at 20℃
Dissipation Factor	Less than .0001 at 20℃. 1 MHz