QUARTZ

MECHANICAL PROPERTIES				
	Specific density			2,20
	Hardness (Mohs scale)			7
	Poisson's coefficient			0,16
	Young's modulus		$N.m^{-2}$	$7,2.10^{10}$
	Rupture stress :	traction	$N.m^{-2}$	5.10^{7}
		compression	$N.m^{-2}$	$1,1.10^{9}$
		flexion	$N.m^{-2}$	$6,5.10^{7}$
		torsion	$N.m^{-2}$	3.10^{7}
	Ultra-sonic wave propagation			
	velocity of sound :	longitudinal waves	m/s	5 960
		transversal waves	m/s	3 770
	internal dampening		$dB.m^{-1}.MHz^{-1}$	0,08
ELECTRICAL PROPERTIES				
	Dielectric constant			3,78
	Dielectric rigidity		$V:m^{-1}$	3,5 à 4.10^{7}
	Loss coefficient at 1 MHz			1.10^{-4}
	Resistivity	at 20°C	Ω.m	1.10^{21}
		at 800°C	Ω.m	20.10^{8}
		at 1000°C	Ω.m	1.10^{6}
THERMAL PROPERTIES				
	Linear expansion coefficient		$°K^{-1}$	$5,4.10^{-7}$
	Specific heat at 20°C		$J.Kg^{-1}\ °K^{-1}$	$7,5.10^{2}$
	Heat conductivity at 20°C		$W.m^{-1}\ °K^{-1}$	$1,2.10^{-4}$
	Anealing point		°C	1 120
	Softening point		°C	1 650
	Temperature of use		°C	1 800 à 2 200
CHEMICAL PROPERTIES				
	Content of SiO^2		%	99,99
	of mineral oxides		ppm	100
	Effect of distilled water for 48h at 80°C			0
	Weight loss caused	by acids	mg/dm^2	0,1
		by alcalines	mg/dm^2	50
OPTICAL PROPERTIES				
	Refraction index			1,4585
	Dispersion			67
	Transparency range		µ m	0,2 à 4
	Photoelasticity		nm/cm/bar	3,6

These are average figures that vary with qualities and manufacturing processes of silica glass, and also with tests conditions such as temperature,

cross section of specimens, dimensions and surface condition of samples taken for measuring.