

BASIC PROPERTIES

Vycor is a 96% silica glass, ideal for high temperature applications.

It has similar properties and performance levels to quartz.

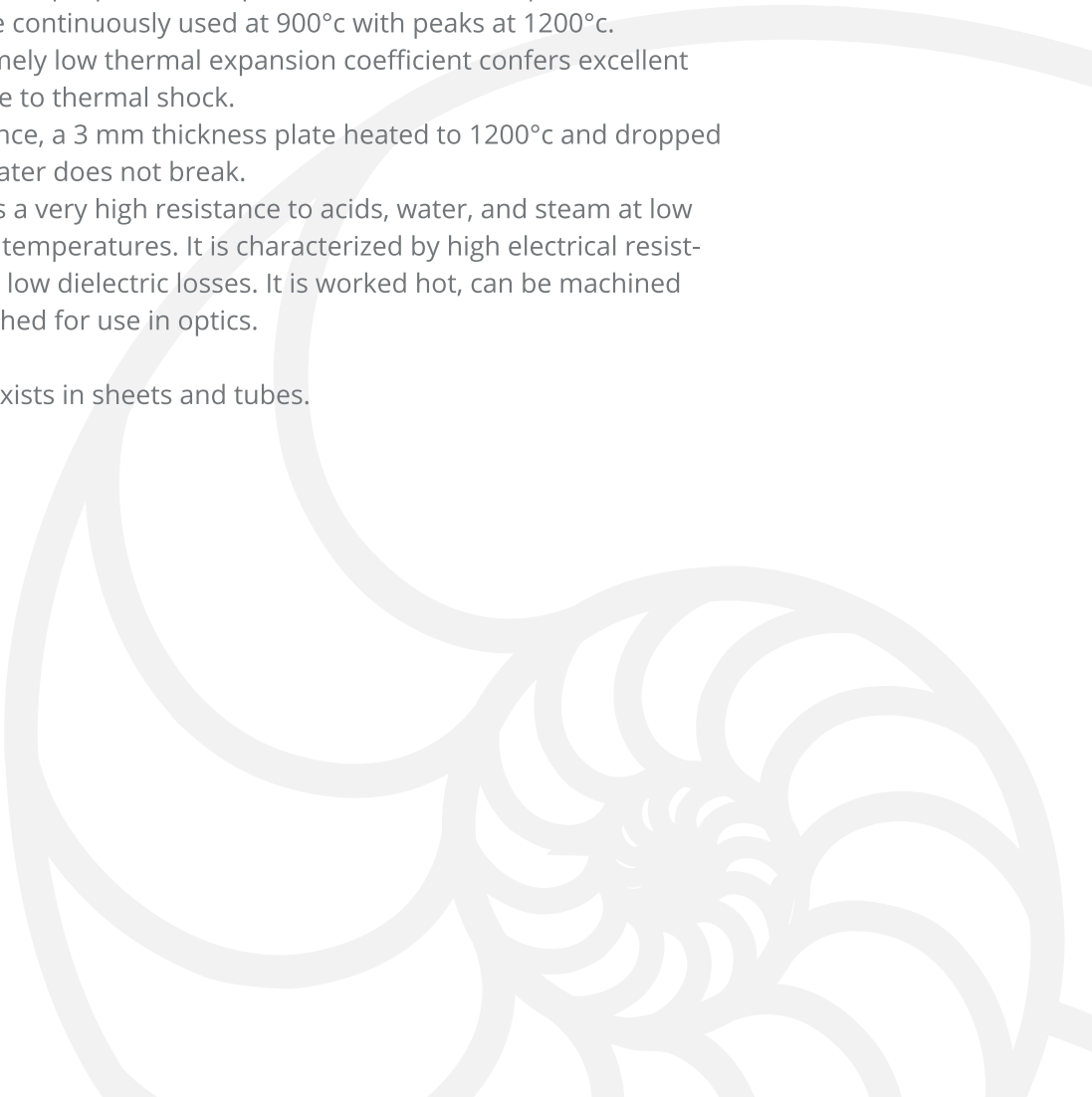
Its can be continuously used at 900°C with peaks at 1200°C.

Its extremely low thermal expansion coefficient confers excellent resistance to thermal shock.

For instance, a 3 mm thickness plate heated to 1200°C and dropped in cold water does not break.

Vycor has a very high resistance to acids, water, and steam at low and high temperatures. It is characterized by high electrical resistance and low dielectric losses. It is worked hot, can be machined and polished for use in optics.

Vycor® exists in sheets and tubes.



MATERIAL		VYCOR
Chemical Formula		
Aspect / color		Transparent
Porosity		Impervious
Mechanical		Measuring unit
Poisson's ratio	-	0,19
Hardness Knoop		487
Shear modulus	kg/cm ²	2,85 x 10 ⁵
Young modulus	kg/cm ²	6,75 x 10 ⁵
Physical		
Maximum temperature use in neutral atmosphere	°c	
Absolute density	g/cm ³	2,18
Electrical		
Electrical resistance at 250°c	Ohms.cm	9,7
Electrical resistance	Ohms.cm	8,1
Dielectric strength	kV/mm	25-40
Dielectric constant at 25°c and 1 MHz	Hz	3,8
Loss tangent for 1 MHz	Hz	0,0005
Loss tangent for 8,5 GHz	Hz	0,0005
Thermal		
Specific heat at 25°c	cal/g.°c	0,18
Thermal conductivity at 20°	cal.cm/cm ²	0,0033
Thermal shock resistance thickness 1/2	°c	750
Thermal shock resistance thickness 1/4	°c	100
Thermal shock resistance thickness 1/8	°c	1200
Thermal diffusivity at 25°c	cm ² /sec	0,009
Thermal strength resistance	°c	202
Optical		
Refractive index	nd = 1,458	588 nm
Chemical		
Chemical resistance at 100°c e tif d 5%	mg/cm ² ont	0,9

**These values are for informational purposes only and do not bind company's responsibility.*