

BASIC PROPERTIES

- Inert glass with high hydrolytic resistance
- Hard glass with high softening point
- Glass with low expansion coefficient with good resistance to thermal shock.
- Glass easy to work with a blowtorch.
- Millable
- Working temperatures: from 300 to 400°C

APPLICATIONS

Laboratory equipments
 Optical sight glasses
 Machined research components

MATERIAL

Chemical composition

Silica 80% / Boric anhydride 13%
 Alumina 2,25% / Ferric oxide 0,05%
 Soda 3,50% / Potash 1,1%

PYREX®

Borosilicate glass

Aspect / color

White / transparent

Porosity

Impervious

Mechanical

Measuring unit

Poisson's ratio

-

0,2

Hardness

Knoop

418

Young modulus

GPa

0,658

Compression resistance

MPa

3600

Traction resistance at 20°C

MPa

142

Physical

Maximum temperature use (inert atmosphere)

°C

300 to 400

Absolute density

g/cm³

2,23

Electrical		
Dielectric constant betw.100°C and 1 KHz		4,7
Dielectric constant betw.20°C and 1 KHz		4,73
Dielectric constant betw.20°C and 3 GHz		4,52
Dielectric constant betw.20°C and 1 MHz		4,56
Dielectric constant betw.200°C and 1 KHz		5,1
Dielectric constant betw.300°C and 1 KHz		5,7
Dielectric loss factor betw. 100°C and 1 KHz		0,009
Dielectric loss factor betw. 20°C and 1 KHz		0,0086
Dielectric loss factor betw. 20°C and 1 MHz		0,0049
Dielectric loss factor betw. 20°C and 3 GHz		0,0064
Dielectric loss factor betw. 200°C and 1 KHz		0,03
Dielectric loss factor betw. 300°C and 1 KHz		0,15
Insulators voltage usage	V	14 000 to 45 000
Thermal		
Softening temperature	°K	820
Specific heat at 20°C	J/Kg.°K	750
Specific heat at 300°k	J/Kg.°K	1090
Thermal expansion coefficient from 20°C to 300°C	$\times 10^{-7}/^{\circ}\text{C}$	32,5
Thermal conductivity at 150°C	J/cm.s.°C	0,0125
Thermal conductivity at 20°C	J/cm.s.°C	0,0113
Thermal conductivity at 300°C	J/cm.s.°C	0,0142
Thermal shock resistance	°C	300
Strain point	°C	516
Annealing Temperature	°C	555
Working temperature	°C	1260
Photoelastic coefficient	Brewster	3,65
Dispersion coefficient	$(n_0-1)/(nF-$	64
Average dispersion	nF-nC	0,00738
Refractive index		1,472

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