

Mechanical Properties

	<i>Corning Fused Quartz 7980</i>	<i>Eagle x6 Fusion Drawn Boro-Alumino Silicat</i>	<i>Borofloat 33</i>	<i>Pyrex 7740</i>	<i>Quartz 6 E 124</i>
Density	2.20g/cm ³	2.38 g/cm ³	2.2 g/cm ³	2.23 g/cm ³	2.21g/cm ³
Poissons Ratio	0.16	.23	0.20	0.20	0.17
Young's Modulus	72.7 GPa	73.6 GPa	64 Kn/mm ²	64 x 10 ³ Kg(f)/mm ²	70 GPa
	10.544 x 10 ⁶ psi	10.675 x 10 ⁶ psi	9.285 x 10 ⁶ psi	9.102 x 10 ⁶ psi	10.152 x 10 ⁶ Psi
Bending Strength			25 MPa (RT)	69 MPa (RT)	80 MPa (RT)
			25,000,000 Pa	69,000,000 Pa	80,000,000 Pa
			3.63 x 10 ³ psi	10.007 x 10 ³ psi	11.603 x 10 ³ psi
Thermal Exp.	5.5 x 10 ⁻⁷ /°C	31.7 x 10 ⁻⁷ cm/cm/°C	32.5 x 10 ⁻⁷ cm/cm/°C	32.5 10 ⁻⁷ cm/cm/°C	5.5 x 10 ⁻⁷ /°C
Chemical Comp.			SiO 81%, B ² O 13%, Na ² O/K ² O 4%, Al ² O ³ 2%	Oxygen 54% Silicon Dioxide 38% Sodium 3% Aluminum 1%	

Note: 1 N = 102g(f), 6894Pa = 1 psi, Pyrex is Approximately 2-4 times stronger than Borofloat, Quartz is approximately 3.2 times stronger than Borofloat

Corning has stopped production of pyrex 7740 plates.