CORNING SAS - Specialty Glass
Rue St Laurent - CS 10243 Bagneaux sur Loing - 77797 NEMOURS CEDEX - FRANCE

Glass designation : **Borosilicate** Code **7052**

Color : **White**
Glass type : **borosilicate**

CORNING

Compatible with Kovar or Kovar-like alloys; thermal shock resistance

Mechanical	**Metric**	**English**
Density	**2.27 g/cm3**	**141.7 lb/ft^3**
Young's Modulus	**5.76 x10^3 kg/mm^2**	**8.2 x 10^6 psi**
Poisson's Ratio	**0.22**	
Shear Modulus	**2.39 x 10^3 kg/mm^2**	**3.4 x 10^6 psi**
Knoop Hardness (KNH $_{100}$)	**403**	**5.73 x 10^5 psi**

Viscosity

Working Point (10^4 poise)	**1128 °C**	**2062 °F**
Softening Point (10$^{7.6}$ poise)	**712 °C**	**1314 °F**
Annealing Point (10^{13} poise)	**484 °C**	**903 °F**
Strain Point (10^{14} poise)	**440 °C**	**824 °F**

Thermal

Coefficient of Expansion (0 °C - 300 °C)	**47.0 x 10^{-7} / °C**	**26.1 x 10^{-7} / °F**
(25 °C to set point 441 °C)	**53.1 x 10^{-7} / °C**	**29.5 x 10^{-7} / °F**

Electrical

Log$_{10}$ Volume Resistivity @ 250 °C	**9.2 ohm-cm**
Log$_{10}$ Volume Resistivity @ 350 °C	**7.4 ohm-cm**
Dielectric Constant @ 20 °C, 1 MHz	**5.1**
Loss Tangent @ 20 °C, 1 MHz	**0.15%**

Optical

Refractive index (589.3nm)	**1.484**

Chemical

Weathering: 2

Acid Durability:3

Weathering is defined as corrosion by atmospheric-borne gases and vapors such as water an carbon dioxide. Glasses rated(1) will almost never show weathering effects;those rated (2) will occasionally be troublesome,particulary if weathering products cannot be removed; those glasses rated (3) will require more carreful consideration.

Acid durability classified glasses according to their behavior in 5% hydrochloric acid at 95 °C (203 °F) for 24 hours.

Classification: Thickness loss (inches) (1) < 10^{-6} (2) 10^{-6} –10^{-5} (3) 10^{-5} –10^{-4} (4) > 10^{-4}

Non-toleranced numerical values are typical values