

## SODA LIME SILICA FLOAT

Modulus of Rupture (MOR): tensile stress at fracture originating in the glass surface, not in the scored and cut glass edge, for a 60-second load duration on weathered, in-service glass

Typical Mean MOR for 50% Probability of breakage:

6,000 psi	41 MPa	Annealed
12,000 psi	83 MPa	Heat-Strengthened
24,000 psi	165 MPa	Toughened

Typical Design Stress for 0.8% Probability of breakage:

2,800 psi	19 MPa	Annealed
5,600 psi	39 MPa	Heat-Strengthened
11,200 psi	77 MPa	Toughened

## TYPICAL PROPERTIES

Modulus of Elasticity (Young's)	10.4 x 10 <sup>6</sup> psi (72 GPa)
Modulus of Rigidity (Shear)	4.3 x 10 <sup>6</sup> psi (30 GPa)
Bulk Modulus	6.2 x 10 <sup>6</sup> psi (43 GPa)
Poisson's Ratio	0.23
Density	2500 kg/m <sup>3</sup>
Coefficient of Thermal Stress	0.62 MPa/°C
Thermal Conductivity @ 75°F	0.937 W.m/m <sup>2</sup> .°C
Specific Heat @ 75°F	0.88 kJ/kg.°C
Coefficient of Linear Expansion	8.3 x 10 <sup>-6</sup> °C
Hardness (Moh's Scale)	5-6
Softening Point (ASTM C 338)	715°C
Annealing Point (ASTM C 336)	548°C
Strain Point (ASTM C 336)	511°C
Index of Refraction: 5893 Nd	1.523
Emissivity (Hemispherical) @ 23.8°C	0.84
Stress-Optical Coefficient Stress (psi)	2.18 x Retardation (*m) / thickness (in)

## TYPICAL CHEMICAL ANALYSIS

SiO <sub>2</sub>	Na <sub>2</sub> O	CaO	MgO	Al <sub>2</sub> O <sub>3</sub>	K <sub>2</sub> O	SO <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>
72.6%	13.9%	8.4%	3.9%	1.1%	0.6%	0.2%	0.11%