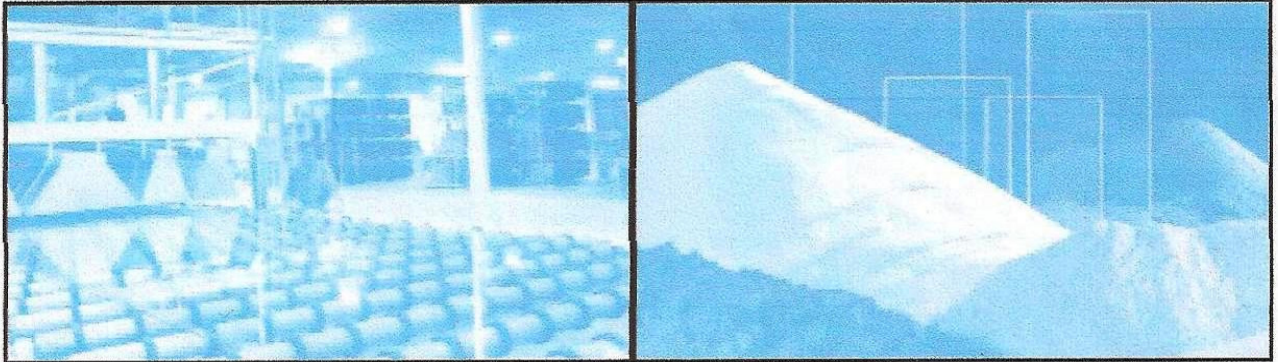


GUARDIAN FLOAT COMPOSITION AND GENERAL GLASS PROPERTIES

Technical Data



Approximate Chemical Composition (Clear Soda Lime Glass)

Major Components	Silica SiO ₂	Sodium Oxide Na ₂ O	Lime CaO	Magnesium Oxide MgO	Alumina Al ₂ O ₃	Iron Oxide Fe ₂ O ₃
Percentage %	70-74	12-16	7.0-12	3.5-4.5	0.0-2.0	0.08-0.15

General Glass Properties

(English)

(SI metric)

(alternate metric)

Refractive Index	1.50-1.58		
Surface Reflectance (visible)	4%, each surface		
Softening Point	1330-1345°F	993-1003K	720-730°C
Thermal Conductivity	0.52-0.57 Btu/hrftF	0.9-1.0 W/mK	0.77-0.85 kcal/hrm C
Coefficient of Linear Expansion (room temperature to 350° C)	$4.7-5.0 \times 10^{-6}$ °F	$8.5-9.0 \times 10^{-6}$ K	$8.5-9.0 \times 10^{-6}$ °C
Hardness (Mohs scale)	6.0		
Density	156 lbs/ft ³	2500 kg/m ³	2.5g/cm ³
Young's Modulus	10.4 x 10 ⁶ psi	71.7 GPa	7,310 kg/mm ²
Poisson's Ratio	0.23		
Avg. Bending Strength (short term)	7,000 psi	48 MPa	500 kg/cm ²
(long term at glass edge)	1,400 psi	9.7 MPa	100 kg/cm ²
Specific Heat 0-100° C	0.20 Btu/lbF	840 J/kg K	0.20 cal/gC
Weather Resistance	Excellent		



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