

## **Your Total Solution Partner**

# **Soda Lime Float Glass (Clear & Tinted)**

Soda lime glass is the most prevalent type of glass and is prepared by melting the raw materials, such as soda, lime, silica, alumina, and small quantities of fining agents in a glass furnace at temperatures up to 1675°C. Soda lime sheet glass is made by floating molten glass on a bed of molten tin. This method gives the sheet uniform thickness and very flat surfaces. Soda lime glass is the base material for most clear, colored and patterned glass types.

### Features:

- Can be chemically strengthened to increase mechanical strength\*
- Can be heat strengthened or heat tempered to increase thermal shock resistance and mechanical strength
- Can be machined, optically coated, chemically etched, sandblasted, colored, or laminated
- Good flatness and surface quality due to float process
- The lowest cost solution for sheet fabricating glass components

\*Mechanical strength is the general ability of a material to withstand stress and strain. The mechanical strength of tempered or chemically strengthened glass can be 4 times as much as ordinary glass.

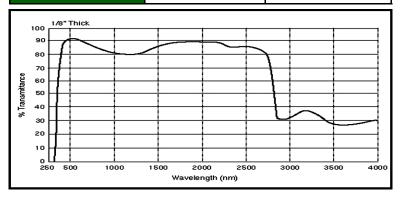
#### **Dimensions:**

- Thicknesses: 0.02" 0 1" (0.55 25.4mm)
- Sizes: Up to 96" x 72" (2440 x 1830mm)

**Contact us** to request other sizes

## **Physical Properties:**

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Modulus of Elasticity	7.2 x 10 <sup>10</sup> Pa	(10.4 x 10 <sup>6</sup> psi)
Modulus of Rigidity	3.0 x 10 <sup>10</sup> Pa	(4.3 x 10 <sup>6</sup> psi)
Bulk Modulus	4.3 x 10 <sup>10</sup> Pa	(6.18 x 10 <sup>6</sup> psi)
Poisson's Ration	0.23	
Specific Gravity	2.53	
Density	2530 kg/m <sup>3</sup>	
Coefficient of Thermal Stress	0.62 mPa/°C	(50 psi/°F)
Thermal Conductivity	0.937 W.m/m2°C	(6.5 btu.in/hr.°F.ft <sup>2</sup> )
Specific Heat	0.21	
Coefficient of Linear Expansion	8.9 x 10 <sup>-6</sup> strain/°C	(4.9 x 10 <sup>-6</sup> strain/° F)
Hardness (Moh's Scale)	5 to 6	
Refractive Index Sodium D Line	1.523	
• (1µm)	1.511	
• (2μm)	1.499	
Softening Point	726°C	1340°F
Annealing Point	546°C	1015°F
Strain Point	514°C	957°F
Emissivity (Hemispherical) at 75°F	0.84	



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### **Glass Fabrication**



**Coating Deposition** 



**CNC Machining** 



Strengthening - Chemical & Heat



**Screen Printing of Graphics** 



Abrisa Technologies, a member of HEF Photonics, is a globally recognized technology glass fabrication and optical thin film coating company with expertise in high volume manufacturing and engineering capabilities, delivering Total Solutions that provide excellent performance, fitness-for-use and economies of scale.

Our US based, state-of-the-art ISO 9001:2015 and ITAR registered facilities include Abrisa Industrial Glass in Santa Paula, CA and ZC&R Coatings for Optics in Torrance CA. These two divisions produce solutions from cut-to-order coated glass components to custom complex and ready-to-install fabricated, strengthened, optically coated, electronically enabled and branded sub-assemblies.

Our Total Solutions serve a variety of markets including Micro-Electronics, Defense and Avionics, Display, Industrial Automation, Optical Sensors, Imaging, Photonics, Medical & Dental, Life Science and more.











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