

PRODUCT DESCRIPTION

Solexia® tinted glass by Vitro Architectural Glass is a soda-lime float glass product with a light green color that deepens as thickness increases. In a 6mm thickness, Solexia® glass provides a high 77% visible light transmittance with a solar heat gain coefficient of 0.59 for improved solar control. Solexia® glass mechanical and physical properties are similar to other soda-lime float glass products

APPROXIMATE WEIGHTS

Per m ²		Per ft ²	
thickness	weight	thickness	weight
3.0 mm	8.2 kg	1/8	1.5 lbs
4.0 mm	9.9 kg	5/32	2.0 lbs
5.0 mm	11.9 kg	3/16	2.4 lbs
6.0 mm	14.2 kg	1/4	2.9 lbs

MECHANICAL PROPERTIES

Knoop Hardness Number (indentation hardness) indenter load--500 gm	470 kgf/mm ²	
Poisson's Ratio	0.22	
Modulus of Elasticity (Young's)	73.1 GPa	10,600,000 psi
Tensile Strength (Determined as Modulus of Rupture, ultimate)	41.4 MPa	6,000 psi
Density at 21°C (70°F)	2.51 g/cm ³	157 lb/ft ³

COLOR

	6.0mm
Transmitted Color: D65, 10° L*	90.5
a*	-7.4
b*	1.2
Hue Angle (°)	171
Dominant wavelength: C, 2°	499 nm

THERMAL PROPERTIES

Hemispherical Emissivity at -18 to 66 °C (0 to 150°F) glass / coating	0.84 / 0.14	
Expansion Coefficient (linear) 20 to 300°C (68 to 572°F)	8.6*10 ⁻⁶ / °C	4.8*10 ⁻⁶ / °F
Specific heat at 0 to 100°C (32 to 212°F)	858 J/kg-K	0.205 Btu/lb-°F
Thermal Conductivity (k) at 50°C (122°F)	0.937 W/m-K	0.542 Btu/hr-ft-°F
Softening Point	719°C	1326°F
Annealing Point	540°C	1004°F
Strain Point	503°C	937°F

CHEMICAL COMPOSITION

SiO ₂	73%
Na ₂ O	14%
CaO	9%
MgO and Trace elements	4%

SUSTAINABILITY

To provide architects with the assurance and documentation they need to meet and verify their sustainability goals, Vitro Architectural Glass participates in a range of programs and initiatives. Resources available include, but are not limited to:

- Type III Environmental Product Declarations
- Cradle to Cradle Certified™ Bronze with associated Gold Material Health Certificate
- LEED® and Living Building Challenge documentation
- Material Ingredient Disclosure and Safety Data Sheets
- Annual Corporate Sustainability Report

Further information is available through VitroGlazings.com or by calling 855-887-6457 (VTRO GLS)



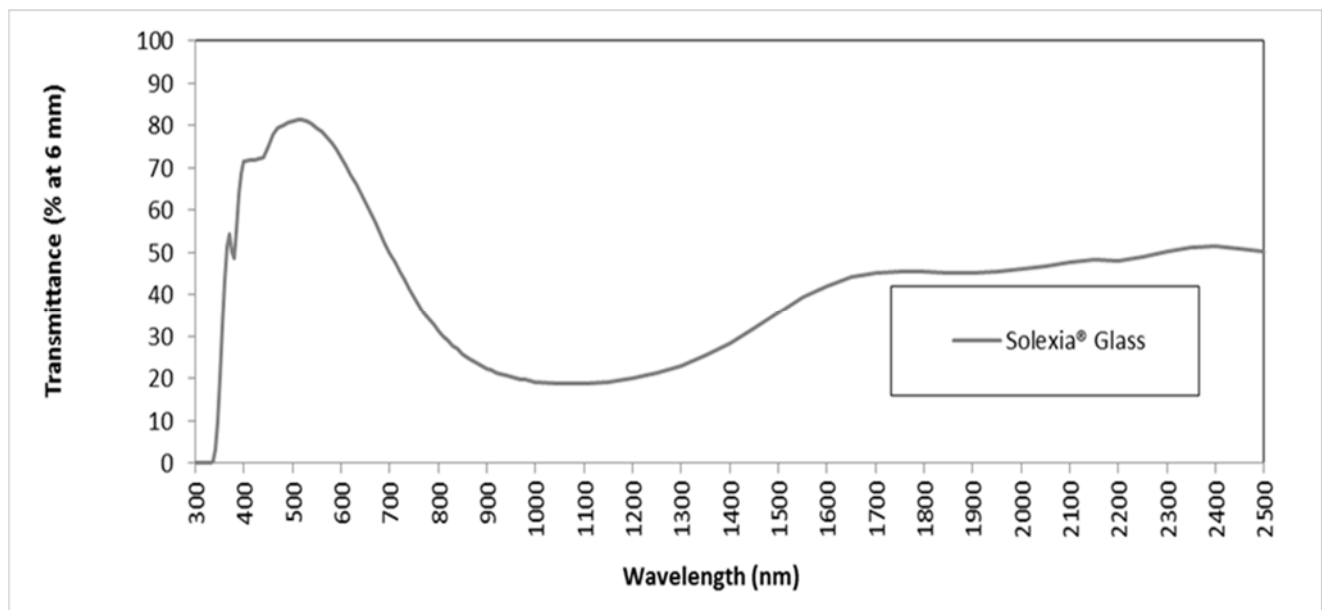
SOLAR PERFORMANCE VALUES [1]

Glass Thickness		Transmittance				Reflectance	
inches	mm	Ultra-violet (%)	Visible (%)	Infrared (%)	Total Solar (%)	Visible (%)	Total Solar (%)
1/8	3.0	43	83	45	60	8	6
5/32	4.0	39	81	40	56	8	6
3/16	5.0	35	80	34	52	8	6
1/4	6.0	31	77	27	47	8	6

[1] Figures may vary due to manufacturing tolerances. All tabulated solar performance data are based on the methodology prescribed in ISO 9050, 2003 except Infrared, which is based on the solar irradiance data prescribed by ISO 9050, 2003 from 780 to 2500 nm. Slight changes in transmitted optical properties may occur on exposure to sunlight.

Transmittance (% at 6 mm/0.223")

Wavelength (nm)	Solexia® Glass %T	Wavelength (nm)	Solexia® Glass %T	Wavelength (nm)	Solexia® Glass %T	Wavelength (nm)	Solexia® Glass %T	Wavelength (nm)	Solexia® Glass %T
300	0.0	430	72.3	660	59.6	890	22.9	1600	42.2
305	0.0	440	72.5	670	57.2	900	22.4	1650	44.2
310	0.0	450	75.2	680	54.7	910	21.9	1700	45.2
315	0.0	460	78.0	690	52.4	920	21.5	1750	45.6
320	0.0	470	79.4	700	50.0	930	21.1	1800	45.5
325	0.0	480	80.2	710	47.8	940	20.8	1850	45.3
330	0.1	490	80.7	720	45.6	950	20.5	1900	45.2
335	0.6	500	81.1	730	43.5	960	20.1	1950	45.7
340	3.3	510	81.4	740	41.4	970	19.9	2000	46.1
345	10.1	520	81.4	750	39.5	980	19.7	2050	46.9
350	20.8	530	81.0	760	37.6	990	19.5	2100	47.8
355	32.8	540	80.4	770	35.8	1000	19.3	2150	48.5
360	43.6	550	79.6	780	34.2	1050	18.9	2200	48.0
365	51.6	560	78.5	790	32.8	1100	19.0	2250	48.9
370	54.4	570	77.4	800	31.4	1150	19.3	2300	50.3
375	50.4	580	76.0	810	30.1	1200	20.1	2350	51.2
380	48.8	590	74.4	820	29.0	1250	21.3	2400	51.5
385	55.7	600	72.6	830	27.9	1300	23.0	2450	51.0
390	63.9	610	70.6	840	27.0	1350	25.5	2500	50.5
395	68.8	620	68.5	850	25.9	1400	28.4		
400	71.5	630	66.2	860	24.9	1450	32.0		
410	71.9	640	64.0	870	24.2	1500	35.8		
420	71.8	650	61.8	880	23.5	1550	39.4		



ADDITIONAL INFORMATION/DOCUMENTS

The following documents can be referenced for additional information regarding Solexia® glass:
 Solexia® Performance Data, Vitro Float Glass Warranty, Vitro Float Glass SDS, C2C Material Health Certificate, Vitro Float Glass EPD