

PRODUCT DESCRIPTION

Solarblue® glass by Vitro Architectural Glass is a soda-lime float glass product with a sparkling, light sky-blue appearance. Solarblue® glass balances high visible light transmittance of 50 percent and a solar heat gain coefficient of 0.49 in a 1-inch IGU. Solarblue® 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
6.0 mm	14.2 kg	¼	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*	80.0
a*	-4.9
b*	-10.1
Hue Angle (°)	244
Dominant wavelength: C, 2°	482 nm

THERMAL PROPERTIES

Hemispherical Emissivity at -18 to 66 °C (0 to 150°F) glass	0.84	
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	724°C	1334°F
Annealing Point	544°C	1011°F
Strain Point	507°C	945°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)



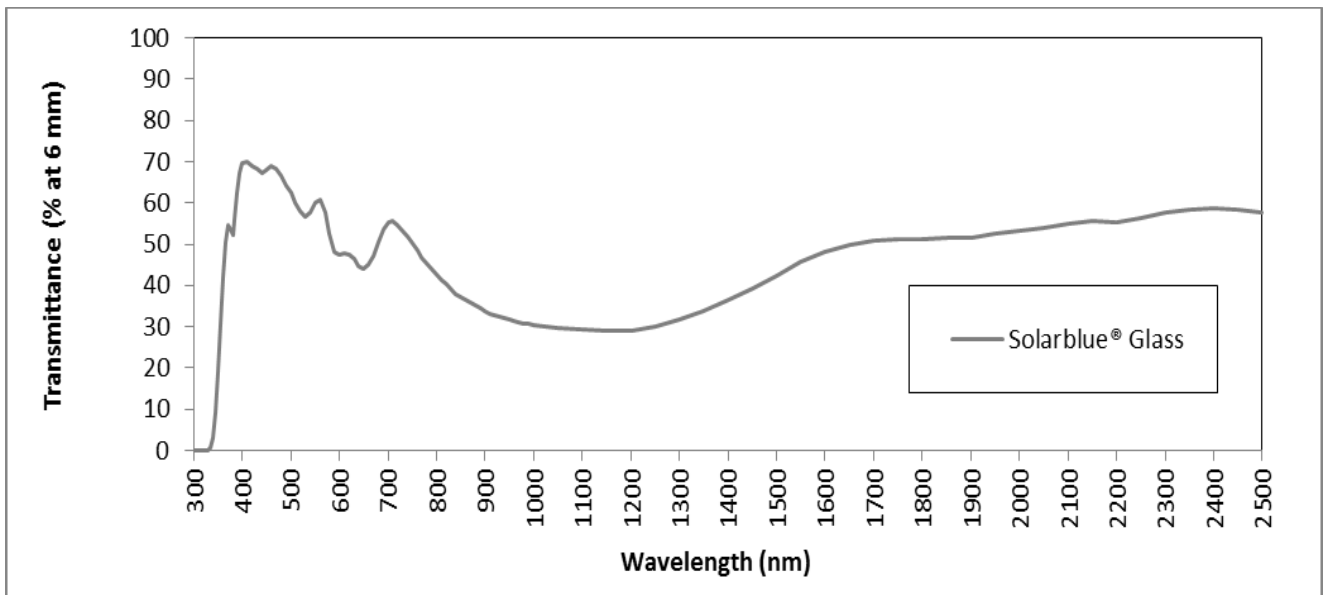
SOLAR PERFORMANCE VALUES ^[1]

Glass Thickness		Transmittance				Reflectance	
inches	mm	Ultra-violet (%)	Visible (%)	Infrared (%)	Total Solar (%)	Visible (%)	Total Solar (%)
¼	6.0	31	56	37	47	6	5

^[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)	Solarblue® Glass %T	Wavelength (nm)	Solarblue® Glass %T	Wavelength (nm)	Solarblue® Glass %T	Wavelength (nm)	Solarblue® Glass %T	Wavelength (nm)	Solarblue® Glass %T
300	0.0	430	68.2	660	45.0	890	34.3	1600	48.2
305	0.0	440	67.3	670	47.1	900	33.9	1650	50.0
310	0.1	450	68.1	680	50.4	910	33.2	1700	50.8
315	0.1	460	68.8	690	53.6	920	32.8	1750	51.2
320	0.0	470	68.2	700	55.4	930	32.3	1800	51.2
325	0.0	480	66.4	710	55.6	940	32.0	1850	51.4
330	0.1	490	64.2	720	54.7	950	31.6	1900	51.7
335	0.7	500	62.4	730	53.3	960	31.3	1950	52.4
340	3.2	510	60.1	740	51.7	970	31.0	2000	53.1
345	9.4	520	58.1	750	50.1	980	30.8	2050	53.9
350	19.2	530	56.8	760	48.5	990	30.6	2100	54.9
355	30.8	540	57.7	770	46.9	1000	30.4	2150	55.7
360	41.8	550	60.2	780	45.3	1050	29.7	2200	55.4
365	50.4	560	60.9	790	43.9	1100	29.2	2250	56.2
370	54.7	570	57.9	800	42.5	1150	29.0	2300	57.7
375	53.8	580	52.5	810	41.3	1200	29.2	2350	58.3
380	52.1	590	48.0	820	40.2	1250	29.9	2400	58.6
385	55.9	600	47.5	830	39.1	1300	31.6	2450	58.3
390	62.5	610	47.8	840	38.0	1350	33.8	2500	57.8
395	67.4	620	47.5	850	37.1	1400	36.5		
400	69.8	630	46.4	860	36.5	1450	39.3		
410	70.0	640	44.9	870	35.7	1500	42.4		
420	68.9	650	44.2	880	35.0	1550	45.6		



ADDITIONAL INFORMATION/DOCUMENTS

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