PRODUCT DESCRIPTION

Vistacool® Azuria® coated glass byVitro Architectural Glass is an aquamarine tinted float glass with a durable, subtly reflective, metallic oxide coating applied during the float process. The reflective coating side of the glass can only be glazed on the second surface. The subtly reflective coating amplifies and enriches the tint of the glass substrate underneath without a mirror-like appearance.

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*	77.6
a*	-10.3
b*	-5.8
Hue Angle (°)	209.2
Dominant wavelength: C, 2°	487.9 nm

THERMAL PROPERTIES

Hemispherical Emissivity at -18 to 66 °C (0 to 150°F)) glass / coating	0.84 / 0.84	
Expansion Coefficient (linear) 20 to 300°C (68 to 572°F)	$8.7*10^{-6}$/ °C	$4.9*10^{-6}$/ °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	720°C	1328°F
Annealing Point	548°C	1019°F
Strain Point	508°C	947°F

CHEMICAL COMPOSITION

SiO_2	73%
Na_2O	14%
CaO	10%
MgO and Trace elements	3%

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)

HEAT TREATMENT GUIDELINES

The coating on *Vistacool® Azuria®* glass is permanent, allowing the glass to be heat treated to satisfy increased strength or safety glazing requirements. While heat treating *Vistacool® Azuria®* coated glass, face the coating away from the furnace rolls to reduce the risk of introducing scratches to the coated surface. Process the glass the same as uncoated glass. The coating on *Vistacool® Azuria®* does not appreciably reflect furnace heat since the coating emissivity is essentially the same as uncoated glass. Glass heat-up time will remain nearly identical as for the same uncoated *Azuria®* tinted glass. **Turn off SO_2 in the furnace.** SO_2 may cause an appreciable loss in durability of the *Vistacool®* coating. Degradation is the result of the SO_2 reducing the atmosphere causing potential damage to the coating.

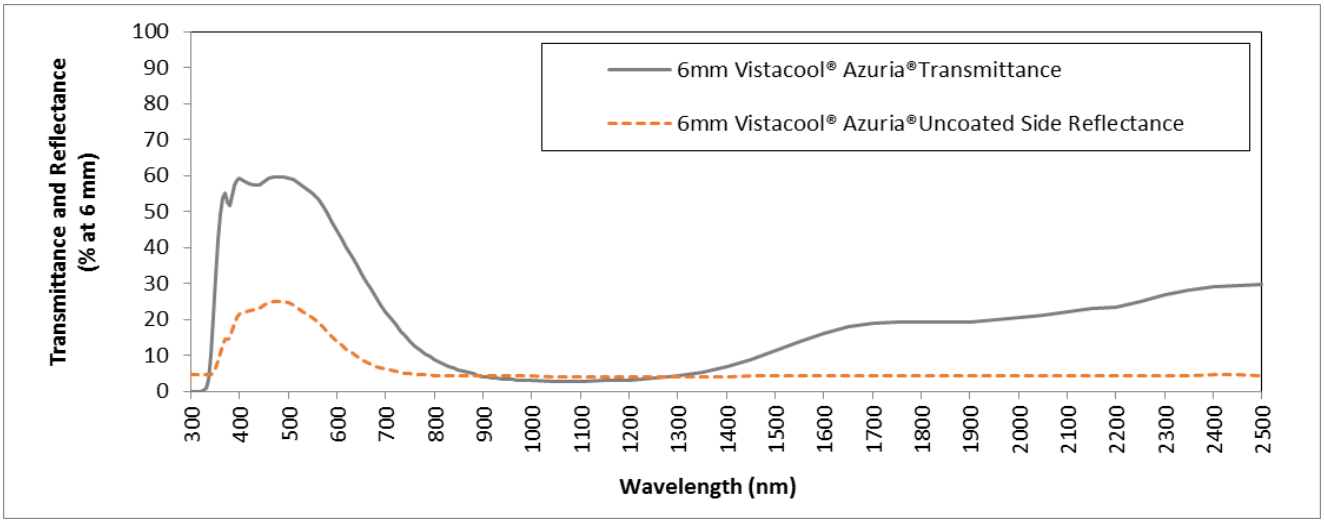
SOLAR PERFORMANCE VALUES COATED SURFACE [1]

Glass Thickness		Transmittance				Reflectance	
inches	**mm**	**Ultra-violet (%)**	**Visible (%)**	**Infrared (%)**	**Total Solar (%)**	**Visible (%)**	**Total Solar (%)**
¼	6.0	35	52	8	25	29	20

[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 to2500 nm. Slight changes in transmitted optical properties may occur on exposure to sunlight.

6 mm Vistacool® Azuria® Transmittance and Uncoated Side Reflectance (% at 6 mm/0.223")

Wavelength (nm)	%T	%R	Wavelength (nm)	%T	%R	Wavelength (nm)	%T	%R	Wavelength (nm)	%T	%R	Wavelength (nm)	%T	%R
300	0.0	4.7	430	57.3	22.8	660	30.5	8.1	890	4.5	4.2	1600	16.1	4.3
305	0.0	4.7	440	57.3	23.2	670	28.3	7.5	900	4.1	4.2	1650	17.8	4.3
310	0.0	4.7	450	58.3	24.1	680	26.1	7.0	910	3.9	4.2	1700	18.9	4.4
315	0.0	4.7	460	59.1	24.7	690	24.1	6.5	920	3.8	4.2	1750	19.3	4.4
320	0.0	4.7	470	59.5	25.0	700	22.1	6.1	930	3.6	4.2	1800	19.3	4.3
325	0.1	4.6	480	59.6	25.0	710	20.3	5.8	940	3.5	4.2	1850	19.4	4.3
330	0.7	4.6	490	59.5	24.8	720	18.5	5.5	950	3.3	4.2	1900	19.2	4.3
335	3.5	4.6	500	59.3	24.5	730	16.8	5.2	960	3.2	4.2	1950	19.9	4.3
340	10.3	4.7	510	58.8	23.9	740	15.3	5.0	970	3.2	4.2	2000	20.6	4.3
345	20.7	5.2	520	58.0	23.1	750	13.9	4.9	980	3.1	4.1	2050	21.2	4.3
350	32.0	6.4	530	57.0	22.1	760	12.7	4.7	990	3.0	4.1	2100	22.2	4.3
355	42.1	8.4	540	56.1	21.3	770	11.4	4.6	1000	2.9	4.1	2150	22.9	4.3
360	49.5	10.8	550	55.1	20.4	780	10.5	4.5	1050	2.8	4.1	2200	23.3	4.3
365	53.9	13.0	560	53.6	19.3	790	9.5	4.5	1100	2.8	4.1	2250	24.9	4.4
370	55.0	14.4	570	51.6	17.9	800	8.7	4.4	1150	2.9	4.1	2300	26.8	4.4
375	52.5	14.4	580	49.3	16.5	810	8.1	4.4	1200	3.2	4.1	2350	28.2	4.4
380	51.4	14.8	590	46.9	15.1	820	7.5	4.3	1250	3.5	4.1	2400	29.1	4.5
385	54.4	16.9	600	44.7	13.9	830	7.0	4.3	1300	4.2	4.1	2450	29.4	4.5
390	57.2	19.0	610	42.5	12.8	840	6.5	4.3	1350	5.3	4.1	2500	29.7	4.4
395	58.5	20.4	620	40.0	11.6	850	6.0	4.2	1400	6.8	4.1			
400	59.1	21.4	630	37.4	10.6	860	5.6	4.2	1450	8.8	4.1			
410	58.2	22.0	640	35.0	9.6	870	5.2	4.2	1500	11.2	4.2			
420	57.7	22.4	650	32.7	8.8	880	4.8	4.2	1550	13.8	4.2			



ADDITIONAL INFORMATION/DOCUMENTS

The following documents can be referenced for additional information regarding Vistacool® Azuria® glass;

Vistacool® Azuria® Performance Data, Vitro Vistacool® Coated Glass Warranty, Vitro Pyrolytic Coated Glass SDS, C2C Material Health Certificate, Vitro Processed Glass EPD