Product Data Sheet

Vistacool® Subtly Reflective and *Solarcool*® Reflective Glasses

Aesthetic Description

Vitro Architectural Glass (formerly PPG Glass) manufactures two families of reflective coated glasses. *Vistacool*® subtly reflective glass coating is applied to the second surface of *Azuria*® and *Pacifica*® tinted glasses to enrich the tinted glass color while adding an understated, soft reflectivity.

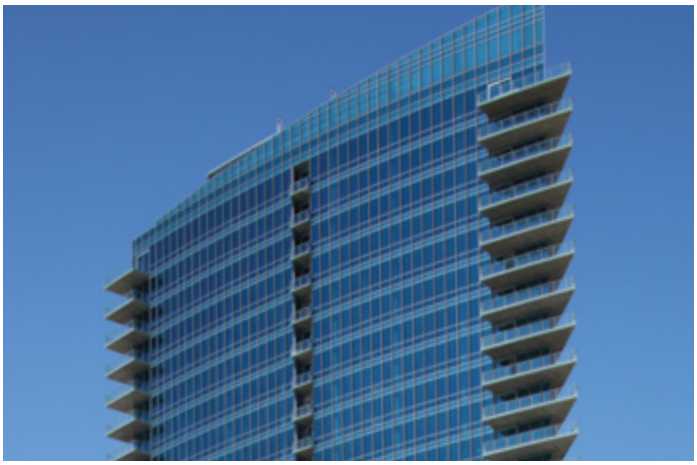
Introduced in 1972, *Solarcool*® reflective glass coating can be applied to either the first or second surface for dramatically different aesthetics on blue, gray and bronze tinted glasses by Vitro Glass. On the second surface, *Solarcool*® reflective glass coating adds reflectivity and deepens the hue of the tinted glass substrate. On the first surface, it creates a bright metallic appearance and mutes the tinted glass substrate color.

Performance Characteristics

Vistacool® and *Solarcool*® reflective glasses reduce energy consumption by reflecting solar heat gain, but for improved performance, may be paired in insulating glass units (IGUs) with *Solarban*® solar control, low-e glasses to achieve desired solar control. With its subtle reflectivity, *Vistacool*® glass delivers higher levels of Visible Light Transmittance (VLT) and a truer substrate color rendering than *Solarcool*® glass.

Fabrication and Availability

Vistacool® and *Solarcool*® glasses provide maximum processing flexibility and can be laminated, tempered or heat-strengthened to satisfy increased strength or safety glazing requirements.



Omni Fort Worth Hotel

Location: Fort Worth, TX | **Products:** *Solarban*® z50, *Vistacool*® *Azuria*® Glasses | **Architect:** HOK | **Glazing Contractor:** Trainor Glass | **Glass Fabricator:** Oldcastle BuildingEnvelope®

They are available through hundreds of Vitro-qualified fabricators throughout the world. *Vistacool*® and *Solarcool*® reflective glasses are combined in an insulating glass unit with *Solarban*® low-e glasses, which are available through the *Vitro Certified*™ Network.

Additional Resources

To obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (877-6457) or visit **samples.vitroglazings.com**. For videos, design insights and technical education, visit the Vitro Glass Education Center at **glassed.vitroglazings.com**. For glass comparison and configuration tools, visit **tools.vitroglazings.com**.

Supporting Sustainable Design

Vitro Architectural Glass provides opportunities for architects and building owners to realize their sustainability objectives.

Energy Use & Operating Cost Reduction: *Vistacool*® and *Solarcool*® glasses can be used with *Solarban*® 60 and *Solarban*® 70 high-performance glasses by Vitro to facilitate downsized mechanical equipment costs, leading to reduced energy costs. Visit **tools.vitroglazings.com** for glass comparison and configuration tools.

Sustainability Documentation: Vitro Architectural Glass is the first U.S. float glass manufacturer to have its entire selection of products recognized by the *Cradle to Cradle Certified*™ program, and the first in North America to publish third-party verified Environmental Product Declarations (EPDs).

For additional credit opportunities and supporting documentation, visit **vitroglazings.com/LEED**

LEED® Credit Opportunities			
Possible Points	**LEED Credit**	***Solarban*® 60/70 Feature**	**Path/Option Satisfied**
18	**Energy & Atmosphere (EA)** Optimize Energy Performance	Excellent SHGC, U-value and VLT performance	Whole Building Energy Simulation (Option 1) or Prescriptive Compliance: ASHRAE Advanced Energy Design Guide (Option 2)
5	**Innovation (IN)** Innovation in Design	Exceeds minimum performance mandated by local energy codes	Innovation (Option 1), Pilot (Option 2) and Exemplary Performance (Option 3)
3	**Indoor Environmental Quality (EQ)** Daylight	Exhibits high light transmission	Simulation: Spatial Daylight Autonomy and Annual Sunlight Exposure (Option 1), Simulation: Illuminance Calculations (Option 2) or Measurement (Option 3)

Vistacool® Subtly Reflective and *Solarcool*® Reflective Glasses

Table of Performance Values							
Glass Type Coating if Any (Surface) Glass Outdoor Lite: Indoor Lite:	Visible Light Transmittance (VLT) %	Visible Light Reflectance		(BTU/hr°ft²°°F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
		Exterior %	Interior %	Winter Nighttime	Winter Argon		
Monolithic (6 mm)							
Vistacool® (2) *Azuria*® Glass	52	19	29	1.02	NA	0.46	1.13
Vistacool® (2) *Pacifica*® Glass	32	10	28	1.02	NA	0.45	0.71
Solarcool® (2) *Solargray*® Glass	17	11	36	1.03	NA	0.44	0.39
Solarcool® (2) *Solarbronze*® Glass	21	13	36	1.03	NA	0.47	0.45
Solarcool® (2) *Solarblue*® Glass	21	14	36	1.02	NA	0.45	0.47
Solarcool® (2) *Azuria*® Glass	26	19	36	1.03	NA	0.38	0.68
Solarcool® (2) *Pacifica*® Glass	16	10	36	1.02	NA	0.38	0.42
Insulating Glass Unit Performance Comparisons 1-inch (25 mm) units with 1/2-inch (13 mm) airspace and two 1/4-inch (6 mm) lites							
***Vistacool*® *Azuria*® Glass**							
Vistacool® (2) *Azuria*® + *Solarban*® 70 (3)	38	21	23	0.28	0.24	0.24	1.58
Vistacool® (2) *Azuria*® + *Solarban*® 60 (3) Clear	42	20	24	0.29	0.24	0.26	1.62
Vistacool® (2) *Azuria*® + Clear	47	21	32	0.47	0.45	0.34	1.38
***Vistacool*® *Pacifica*® Glass**							
Vistacool® (2) *Pacifica*® + *Solarban*® 70 (3)	24	11	22	0.28	0.24	0.19	1.26
Vistacool® (2) *Pacifica*® + *Solarban*® 60 (3) Clear	26	11	23	0.29	0.24	0.22	1.18
Vistacool® (2) *Pacifica*® + Clear	29	11	31	0.47	0.45	0.32	0.91
***Solarcool*® *Solargray*® Glass**							
Solarcool® (2) *Solargray*® + *Solarban*® 70 (3)	13	11	27	0.28	0.24	0.14	0.93
Solarcool® (2) *Solargray*® + *Solarban*® 60 (3) Clear	14	11	29	0.29	0.24	0.17	0.82
Solarcool® (2) *Solargray*® + Clear	16	11	38	0.47	0.45	0.32	0.50
***Solarcool*® *Solarbronze*® Glass**							
Solarcool® (2) *Solarbronze*® + *Solarban*® 70 (3)	15	14	27	0.28	0.24	0.15	1.00
Solarcool® (2) *Solarbronze*® + *Solarban*® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) *Solarbronze*® + Clear	19	14	38	0.47	0.45	0.34	0.56
***Solarcool*® *Azuria*® Glass**							
Solarcool® (2) *Azuria*® + *Solarban*® 70 (3)	19	19	27	0.28	0.24	0.16	1.19
Solarcool® (2) *Azuria*® + *Solarban*® 60 (3) Clear	21	19	29	0.29	0.24	0.17	1.24
Solarcool® (2) *Azuria*® + Clear	24	20	38	0.47	0.45	0.25	0.96
***Solarcool*® *Solarblue*® Glass**							
Solarcool® (2) *Solarblue*® + *Solarban*® 70 (3)	16	14	28	0.28	0.24	0.15	1.07
Solarcool® (2) *Solarblue*® + *Solarban*® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) *Solarblue*® + Clear	20	15	38	0.47	0.45	0.32	0.63
***Solarcool*® *Pacifica*® Glass**							
Solarcool® (2) *Pacifica*® + *Solarban*® 70 (3)	12	10	27	0.28	0.24	0.13	0.92
Solarcool® (2) *Pacifica*® + *Solarban*® 60 (3) Clear	13	10	29	0.29	0.24	0.15	0.87
Solarcool® (2) *Pacifica*® + Clear	15	10	38	0.47	0.45	0.25	0.60

Vistacool® glass is not available for first-surface applications. *Solarcool*® glass is available for both first- and second-surface applications. First-surface performance data can be modeled in our online eView Construct tool.

All performance data calculated using LBNL Window 7.3 software representing center of glass performance data. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit vitroglazings.com or request our Architectural Glass Catalog.

For more information about Reflective and Subtly Reflective Glasses and other *Cradle to Cradle Certified*™ architectural glasses by Vitro Glass, visit **vitroglazings.com**, or call **1-855-VTRO-GLS (1-855-887-6457).**

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CERTIFIED cradle to cradle

Vitro® Architectural Glass