

Product Data Sheet



Aesthetic Description

The latest evolution in solar control low-e glass, *Solarban*® 90 glass combines major advances in coating technology with the aesthetic appeal of clear glass.

Developed with input from architects, *Solarban*® 90 glass conveys a true neutral appearance similar to that of clear glass in both color and reflectance, whether viewed from the interior or exterior of a building. The advanced solar control low-e coating manages the light spectrum to balance visible light transmittance and help manage glare, while providing exceptional solar performance.

As with other *Solarban*® low-e coated glasses, *Solarban*® 90 glass has the versatility to be paired with clear, *Starphire Ultra Clear*™ or an array of performance-tinted glasses to provide a broad range of aesthetic and performance options. In any configuration, the neutral nature of *Solarban*® 90 glass harmonizes well with other building materials to support the architect's design vision.

Performance Characteristics

Combining advanced coating technology with refinements to Vitro Architectural Glass' (formerly PPG glass) proven triple-silver coating technology, *Solarban*® 90 glass is engineered to outperform *Solarban*® 70XL glass, the most preferred high-performance solar control low-e glass in North America.

When paired with clear glass in a standard one-inch insulating glass unit (IGU), *Solarban*® 90 glass offers a Solar Heat Gain Coefficient (SHGC) of 0.23, an improvement of 15 percent compared to *Solarban*® 70XL glass. The same pairing yields a Visible Light Transmittance (VLT) of 51 percent, which fits well within the ideal range of most commercial glazing applications, along with an exceptional Light to Solar Gain (LSG) ratio of 2.22.

Due to its exceptional solar control performance, *Solarban*® 90 glass enables architects to specify larger expanses of glass to connect people to the outdoor environment. *Solarban*® 90 glass



also facilitates the use of smaller HVAC systems to reduce cooling costs, while minimizing artificial lighting requirements and the need for external shading devices.

Comparison Chart

Product*	VLT	SHGC	LSG Ratio	Exterior Reflectance
<i>Solarban</i> ® 90 Glass	51%	0.23	2.22	12%
<i>Solarban</i> ® 70XL Glass	64%	0.27	2.37	12%

*performance data based on a 1-inch IGU with clear glass



Solarban® 90 Glass

Fabrication and Availability

Solarban® 90 glass is available exclusively through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. Solarban® 90 glass is manufactured using the magnetron sputtering vacuum deposition (MSVD) process and is available heat-strengthened and tempered.

Additional Resources

Solarban® 90 glass is Cradle to Cradle Certified™. For more information or to obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (887-6457) or visit vitroglazings.com.

Vitro Architectural Glass is the first U.S. float glass manufacturer to have its products recognized by the Cradle to Cradle Certified™ program, and offers more C2C-certified architectural glasses than any other float glass manufacturer.



Developed with input from architects, Solarban® 90 glass conveys a true neutral appearance similar in color and reflectance to clear glass from both inside and outside the building.

Insulating Glass Unit Performance Comparisons | 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites

Outdoor Lite: Coating if Any (Surface) Glass	Glass Type + Indoor Lite: Coating if Any (Surface) Glass	Visible Light Transmittance (VLT)	Visible Light Reflectance		(BTU/hr ² ft ² °F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
			Exterior %	Interior %	Winter Nighttime	Winter Argon		
Solarban® 90 Solar Control Low-E Glass								
Solarban® 90 (2) Clear + Clear		51	12	19	0.29	0.24	0.23	2.22
Solarban® 90 (2) Starphire® + Starphire®		54	13	20	0.29	0.24	0.23	2.35
Solarban® 90 (2) Solexia® + Clear		44	10	19	0.29	0.24	0.22	2.00
Solarban® 90 (2) Atlantica® + Clear		39	9	19	0.29	0.24	0.20	1.95
Solarban® 90 (2) Azuria® + Clear		39	9	19	0.29	0.24	0.21	1.86
Solarban® 90 (2) Optiblue® + Clear		37	8	19	0.29	0.24	0.20	1.85
Solarban® 90 (2) Solarblue® + Clear		32	8	18	0.29	0.24	0.19	1.68
Solarban® 90 (2) Pacifica® + Clear		24	6	18	0.29	0.24	0.17	1.41
Solarban® 90 (2) Solarbronze® + Clear		31	7	18	0.29	0.24	0.18	1.72
Solarban® 90 (2) Optigray® + Clear		36	8	19	0.29	0.24	0.20	1.80
Solarban® 90 (2) Solargray® + Clear		26	6	18	0.29	0.24	0.17	1.53
Solexia® + Solarban® 90 (3) Clear		44	16	12	0.29	0.24	0.30	1.47
Atlantica® + Solarban® 90 (3) Clear		39	13	12	0.29	0.24	0.26	1.50
Azuria® + Solarban® 90 (3) Clear		39	13	12	0.29	0.24	0.27	1.44
Solarblue® + Solarban® 90 (3) Clear		32	10	11	0.29	0.24	0.25	1.28
Pacifica® + Solarban® 90 (3) Clear		24	8	11	0.29	0.24	0.21	1.14
Solarbronze® + Solarban® 90 (3) Clear		30	10	11	0.29	0.24	0.24	1.25
Optigray® + Solarban® 90 (3) Clear		36	12	11	0.29	0.24	0.27	1.33
Solargray® + Solarban® 90 (3) Clear		25	8	11	0.29	0.24	0.22	1.14
Graylite® II + Solarban® 90 (3) Clear		5	4	11	0.29	0.24	0.11	0.45

All performance data calculated using LBNL Window 7.3 software, except European u-value, which is calculated using WinDat version 3.0.1 software. 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 Solarban® low-e glass and other Cradle to Cradle Certified™ architectural glasses by Vitro Glass, visit vitroglazings.com, or call 1-855-VTRO-GLS (887-6457).

