

Product Data Sheet



For decades, architects have relied on the ever-expanding *Solarban*® family of solar control, low-e glasses by Vitro Architectural Glass (formerly PPG Glass) to meet their design and performance needs. *Solarban*® R100 glass's neutral-reflective appearance makes it among the most versatile options in this collection of high-performance architectural glasses.

Aesthetic Description

Solarban® R100 glass is a neutral-reflective, low-e glass that provides significant improvements in solar performance compared to competing products in the same architectural glass category.

Because *Solarban*® R100 glass uniquely balances reflectivity and color-neutrality, it can function both as a privacy glass and as a material that harmonizes with spandrels and other building materials.

Inside the building, *Solarban*® R100 glass has reflectance of just 14 percent and transmits a pleasant cool blue-gray appearance that reduces glare without creating an obtrusive reflected color for building occupants.

Outside, *Solarban*® R100 glass has exterior reflectance of 32 percent that combines with the neutral aesthetic to deliver a clean, crisp exterior for any building project.

Performance Options

Solarban® R100 glass has an excellent Solar Heat Gain Coefficient (SHGC) of 0.23 and a Visible Light Transmittance (VLT) of 42 percent. The resulting Light to Solar Gain (LSG) ratio of 1.83 is up to 29 percent better than competitive reflective, low-e glasses, making *Solarban*® R100 glass one of the best-performing architectural glass products on the market.

Because of its color-neutral appearance, *Solarban*® R100 glass can be applied to Vitro's wide range of tinted glasses. When used on the second surface in one-inch insulating glass units, these tints combine with *Solarban*® R100 glass to achieve LSG ratios of up to 1.71, while providing an exceptional array of aesthetic options.

Fabrication and Availability

Solarban® R100 glass is available 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*® R100 glass is manufactured using the sputter-coating process and is available for laminated, heat-strengthened and tempered applications.

Request Samples

To obtain samples of any Vitro Glass product, visit samples.vitroglazings.com or call 1-855-VTRO-GLS (877-6457).



The HCA office building in Nashville, Tenn., features *Solarban*® R100 Glass by Vitro Architectural Glass.



The Daimler Trucks North American Headquarters in Portland, Ore., features *Solarban*® R100 Glass with *Solarban*® Glass by Vitro Architectural Glass.

Solarban® R100 Glass

Supporting Sustainable Design

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

Energy Use & Operating Cost Reduction: High-performance glasses by Vitro are engineered to facilitate downsized mechanical equipment costs, leading to reduced long-term energy costs. Visit tools.vitroglazings.com for glass comparison and configuration tools for analyzing glass products.

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 its Flat Glass and Processed Glass products.

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

LEED® Credit Opportunities			
Possible Points	LEED Credit	Solarban® R100 Feature	Path/Option Satisfied
18	Energy & Atmosphere (EA) Optimize Energy Performance	Excellent SHGC, U-value and Tvis 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)

Insulating Glass Unit Performance Comparisons 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites							
Glass Type	Visible Light Transmittance (VLT) %	Visible Light Reflectance		(BTU/hr²ft²°F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)
		Exterior %	Interior %	Winter Nighttime	Winter Argon		

Solarban® R100 Solar Control Low-E Glass

Solarban® R100 (2) Clear + Clear	42	32	14	0.29	0.25	0.23	1.83
Solarban® R100 (2) Acuity™ + Acuity™	43	33	13	0.29	0.25	0.23	1.87
Solarban® R100 (2) Starphire® + Starphire®	44	33	14	0.29	0.25	0.23	1.91
Solarban® R100 (2) Solexia® + Clear	36	25	13	0.29	0.25	0.21	1.71
Solarban® R100 (2) Atlantica® + Clear	31	20	13	0.29	0.25	0.19	1.68
Solarban® R100 (2) Azuria® + Clear	32	21	13	0.29	0.25	0.19	1.68
Solarban® R100 (2) Optiblue® + Clear	30	19	13	0.29	0.25	0.20	1.50
Solarban® R100 (2) Solarblue® + Clear	26	15	13	0.29	0.25	0.19	1.37
Solarban® R100 (2) Pacifica® + Clear	20	11	13	0.29	0.25	0.16	1.25
Solarban® R100 (2) Solarbronze® + Clear	25	15	13	0.29	0.25	0.18	1.39
Solarban® R100 (2) Optigray® + Clear	29	18	13	0.29	0.25	0.20	1.45
Solarban® R100 (2) Solargray® + Clear	21	12	13	0.29	0.25	0.17	1.24

All performance data calculated using LBNL Window 7.3 software and represents 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 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).

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