

Product Data Sheet



For decades, architects have relied on the ever-expanding *Solarban*® family of solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) to meet their design and performance needs. With its versatile, neutral-reflective appearance, *Solarban*® R100 solar control, low-e glass represents the latest addition to 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 greater 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 a variety of tints from 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.

Sustainable Design and Architectural Glass

Sustainable design, green building, safeguarding the environment and the long-term management of energy costs are vital considerations for today's building designers. *Solarban*®



Solarban® R100 glass is a neutral-reflective, solar control, low-e glass with a Light to Solar Gain (LSG) ratio that is up to 29 percent greater than similar competing products.

R100 glass is another tool architects and building owners can use to reach their design objectives.

In addition to making products that support sustainable design, Vitro is a pioneer of innovative technologies that reduce energy consumption during the glass-making process. Vitro promotes environmentally responsible manufacturing by recovering and reusing virtually all its glass manufacturing by-products and by shipping its materials on reusable steel racks. Vitro also promotes regional sourcing through its worldwide network of certified glass fabricators and laminators.

The *Solarban*® R100 coating on clear glass and tinted substrates promotes sustainable design and provides LEED® credit opportunities according to the following criteria:

LEED/Green Design Category	Feature	Benefit
Optimize Energy Performance	Excellent SHGC, U-value and Tvis performance	Enhance energy performance of building
Daylight & Views	Good VLT	Connectivity to natural lighting and the outdoors
Innovation in Design	Cradle to Cradle Certification™	Selection of environmentally focused product evaluation



Solarban® 72 Glass

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 heat-strengthened and tempered applications.

Additional Resources

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.



Solarban® R100 glass balances reflectivity and color-neutrality to harmonize with colorful spandrels and other building materials. The sample on the left has been opacified to simulate the exterior appearance of Solarban® R100 glass on a building during daylight hours.

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/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® 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) 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	32	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	0.24	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

* Data based on using Starphire® glass for both interior and exterior lites.

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).

