Product Data Sheet

SOLARBAN®60
Solar Control Low-E Glass

Aesthetic Description

Solarban® 60 solar control, low-e glass by Vitro Architectural Glass (formerly PPG Glass) was engineered to control solar heat gain, which is essential to minimizing cooling costs. In a standard one-inch insulating glass unit (IGU), *Solarban*® 60 glass offers an exterior appearance similar to clear, uncoated glass.

With a very good Solar Heat Gain Coefficient (SHGC) of 0.39, *Solarban*® 60 glass blocks 66 percent of the total solar energy while allowing 70 percent of the visible light to pass through. This combination produces an excellent Light to Solar Gain (LSG) ratio of 1.79, along with exceptional insulating performance, as evidenced by its 0.29 winter nighttime U-value.

Aesthetic Options

Solarban® 60 glass can be coated on *Starphire*® glass and paired with *Starphire*® glass to produce an IGU with exceptional clarity and solar control characteristics. For even more color and performance options, it can be coated on the second (#2) surface of nearly all Vitro's wide range of tinted glasses. It can also be combined in an IGU with any Vitro tinted glass, *Solarcool*® reflective glass or *Vistacool*® subtly reflective, color-enhanced glass (see performance data on back page).

Solarban® 60 Glass and Sustainable Design

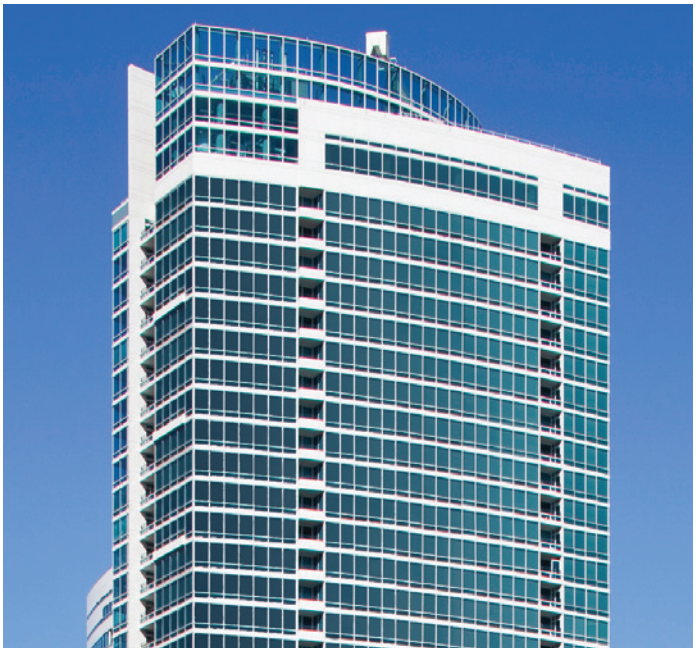
An energy modeling study conducted by an independent energy design and consulting firm showed that architects and building owners can potentially save millions of dollars during a building's lifetime by specifying *Solarban*® 60 glass instead of less advanced architectural glazings.

For instance, the study showed that, by substituting *Solarban*® 60 glass in place of dual-pane tinted glass, the owners of a typical glass-walled, eight-story office building in Boston could lower their initial HVAC equipment costs by nearly $350,000 while realizing annual energy savings of more than $80,000. Corresponding carbon emissions from the same building were also reduced by more than 300 tons per year, eclipsing the total carbon emissions generated by 31,000 gallons of gasoline.

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

Prudential Center

Location: Newark, NJ | **Product:** *Solarban*® 60 Glass | **Architect:** Morris Adjmi Architects | **Glass Contractor:** Josloff Glass | **Glass Fabricator:** J.E. Berkowitz, LP



Streeter Place

Location: Chicago, IL | **Product:** *Solarban*® 60 Glass | **Architect:** Solomon Cordwell Buenz and Associates | **Owner/Developer:** Golub and Company | **Glass Fabricator:** Northwestern Industries, Inc. | **Glazing Contractor:** Custom Windows and J&D Erectors

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Vitro®

Fabrication and Availability

Solarban® 60 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*® 60 glass is manufactured using the sputter-coating process and is available for annealed, heat-strengthened and tempered applications.

Additional Resources

Solarban® 60 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.

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

Glass Type: Outdoor Lite: Coating if Any (Surface) Glass + Indoor Lite: Coating if Any (Surface) Glass	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		
***Solarban*® 60 Solar Control Low-E Glass**							
Solarban® 60 (2) Clear + Clear	70	11	12	0.29	0.24	0.39	1.79
Solarban® 60 (2) *Starphire*® + *Starphire*®	74	11	12	0.29	0.24	0.41	1.80
Solarban® 60 (2) *Solexia*® + Clear	61	9	12	0.29	0.24	0.32	1.91
Solarban® 60 (2) *Atlantica*® + Clear	53	8	11	0.29	0.24	0.27	1.96
Solarban® 60 (2) *Azuria*® + Clear	54	8	11	0.29	0.24	0.28	1.93
Solarban® 60 (2) *Solarblue*® + Clear	45	7	11	0.29	0.24	0.28	1.61
Solarban® 60 (2) *Pacifica*® + Clear	34	6	10	0.29	0.24	0.22	1.55
Solarban® 60 (2) *Solarbronze*® + Clear	42	7	11	0.29	0.24	0.28	1.50
Solarban® 60 (2) *Optigray*® + Clear	50	8	11	0.29	0.24	0.30	1.67
Solarban® 60 (2) *Solargray*® + Clear	35	6	10	0.29	0.24	0.25	1.40
Solexia® + *Solarban*® 60 (3) Clear	61	10	10	0.29	0.24	0.37	1.65
Atlantica® + *Solarban*® 60 (3) Clear	53	9	10	0.29	0.24	0.31	1.71
Azuria® + *Solarban*® 60 (3) Clear	54	9	10	0.29	0.24	0.31	1.74
Solarblue® + *Solarban*® 60 (3) Clear	45	7	9	0.29	0.24	0.33	1.36
Pacifica® + *Solarban*® 60 (3) Clear	34	6	9	0.29	0.24	0.25	1.36
Solarbronze® + *Solarban*® 60 (3) Clear	42	7	9	0.29	0.24	0.32	1.31
Optigray® + *Solarban*® 60 (3) Clear	50	8	9	0.29	0.24	0.35	1.43
Solargray® + *Solarban*® 60 (3) Clear	35	7	9	0.29	0.24	0.29	1.21
GraylitE II + *Solarban*® 60 (3) Clear	7	4	8	0.29	0.24	0.13	0.54
Vistacool*® and *Solarcool*® with *Solarban*® 60 Solar Control Low-E (3)							
Vistacool® (2) *Azuria*® + *Solarban*® 60 (3) Clear	42	20	24	0.29	0.24	0.26	1.62
Vistacool® (2) *Pacifica*® + *Solarban*® 60 (3) Clear	26	11	23	0.29	0.24	0.21	1.24
Solarcool® (2) *Solexia*® + *Solarban*® 60 (3) Clear	24	24	29	0.29	0.24	0.19	1.26
Solarcool® (2) *Azuria*® + *Solarban*® 60 (3) Clear	21	19	29	0.29	0.24	0.17	1.24
Solarcool® (2) *Solarblue*® + *Solarban*® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) *Pacifica*® + *Solarban*® 60 (3) Clear	13	10	29	0.29	0.24	0.15	0.87
Solarcool® (2) *Solarbronze*® + *Solarban*® 60 (3) Clear	17	14	29	0.29	0.24	0.18	0.94
Solarcool® (2) *Solargray*® + *Solarban*® 60 (3) Clear	14	11	29	0.29	0.24	0.17	0.82

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

All performance data calculated using LBNL Window 6.3 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 www.ppgideascapes.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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