



Grand River Center
Location: Dubuque, IA
Products: Solarban® 60 Glass and Solarban® 80 Clear Glass
Architect: HOK Sport + Venue + Event
Glazing Contractor: East Moline Glass Co.
Glass Fabricator: Oldcastle Glass

Designed with architects for architects, **Solarban® 80** glass addresses the need for a single product combining good visible light transmittance and aesthetic appeal with unequalled solar control.

Aesthetic Description

Like no other glass, **Solarban 80** glass creates a dynamic exterior aesthetic. A sample viewed indoors provides a glimpse of the same steel jade appearance exhibited by **Solarban 80** glass when shaded from the sun. When bathed in direct sunlight, **Solarban 80** glass transforms into a satin reflective finish with true color-reflected images of the blue sky, green trees and landscaping.

Solarban 80 glass can also be combined with **Optiblue** glass by PPG as the interior lite. This combination produces an extraordinarily appealing metallic green-gray exterior with a highly transparent neutral-gray interior.

Performance

The performance of **Solarban 80** glass is exceptional, with a solar heat gain coefficient (SHGC) of 0.24 and an excellent U-value that helps control radiant reflected energy from the outdoors. Combined with visible light transmittance of 47%, **Solarban 80** glass yields a light to solar gain (LSG) ratio* of 1.98 in a standard one-inch insulating glass unit.

When teamed with **Optiblue** glass as the interior lite (instead of clear glass), the performance is equally impressive. **Solarban 80 Optiblue** glass produces visible light transmittance of 34% and a solar heat gain coefficient (SHGC) of 0.23. The resulting light to solar gain (LSG) ratio of 1.48 far exceeds the U.S. Department of Energy's 1.25 LSG threshold for spectrally selective glass.

Solarban 80 and **Solarban 80 Optiblue** glasses are both ideal for supporting sustainable building practices.

A one-inch insulating unit of Solarban 80 (2) clear glass provides:

- Optimum balance of visible light transmittance, solar performance and glare control
- A satin finish that clearly reflects undistorted images
- Solar control properties that support sustainable building principles

A one-inch insulating unit of Solarban 80 (2) Optiblue glass provides:

- An attractive metallic green-gray exterior tint
- Excellent outdoor views and comfortable light-filled interiors
- A combination of visible light transmittance and solar control that helps buildings achieve LEED and other green-building standards

* The U.S. Department of Energy defines spectrally selective glass as any glass with a Light to Solar Gain (LSG) ratio of 1.25 or better. LSG is a derivative of Solar Heat Gain Coefficient (SHGC) and Visible Light Transmittance (VLT).



Solarban 80 Optiblue glass by PPG features a metallic gray-green exterior appearance along with excellent solar control performance. Its light-to-solar gain (LSG) ratio of 1.48 far exceeds the U.S. Department of Energy's 1.25 LSG threshold for spectrally selective glass, making Solarban 80 Optiblue glass an excellent choice for supporting LEED principles.

Fabrication and Availability

MSVD sputter-coated **Solarban 80** glass and **Solarban 80 Optiblue** glass can be annealed, heat-strengthened or tempered. Both products are available as standard products through more than 30 locations of the PPG Certified Fabricator Network. PPG Certified Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction.



To locate a PPG Certified Fabricator in your area, visit www.ppgcfp.com or call 1-888-PPG-IDEA (774-4332).

Additional Resources

Solarban 80 and **Solarban 80 Optiblue** glasses are part of the **ecoLogical Building Solutions™** from PPG. For more information, or to obtain samples of these products, call 1-888-PPG-IDEA, or visit www.ppgideascales.com.



PPG IdeaScapes™ Surface solutions to inspire your sustainable design and color vision.



Viewed from the interior, Solarban 80 Optiblue glass (left) and Solarban 80 clear glass (right) provide exceptional outdoor views with minimal reflectance. By transmitting high levels of light and blocking solar heat, both glasses also help building owners cut artificial cooling and lighting costs, lower HVAC capacity requirements, and reduce energy-related CO₂ emissions compared to dual-pane glass.

Solarban® 80 Glass Performance

Insulating Vision Unit Performance 1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites; interior lite clear												
Glass Type	Transmittance			Reflectance		U-Value (Imperial)		K-Value (Metric)		Shading Coefficient	Solar Heat Gain Coefficient	Light to Solar Gain (LSG)
	Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time	Winter Night-time	Summer Day-time			
SOLARBAN® 80 Solar Control Low-E Coating												
SOLARBAN 80 (2) Clear + Clear	13	48	20	33	38	0.29	0.27	1.65	1.55	0.28	0.24	1.98
SOLARBAN 80 (2) Clear + OPTIBLUE	10	34	15	32	38	0.29	0.27	1.65	1.55	0.27	0.23	1.48

Performance data simulated using LBL Window 5.2. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit www.ppgglazing.com or request our Architectural Glass Catalog.

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