

### Aesthetic Description

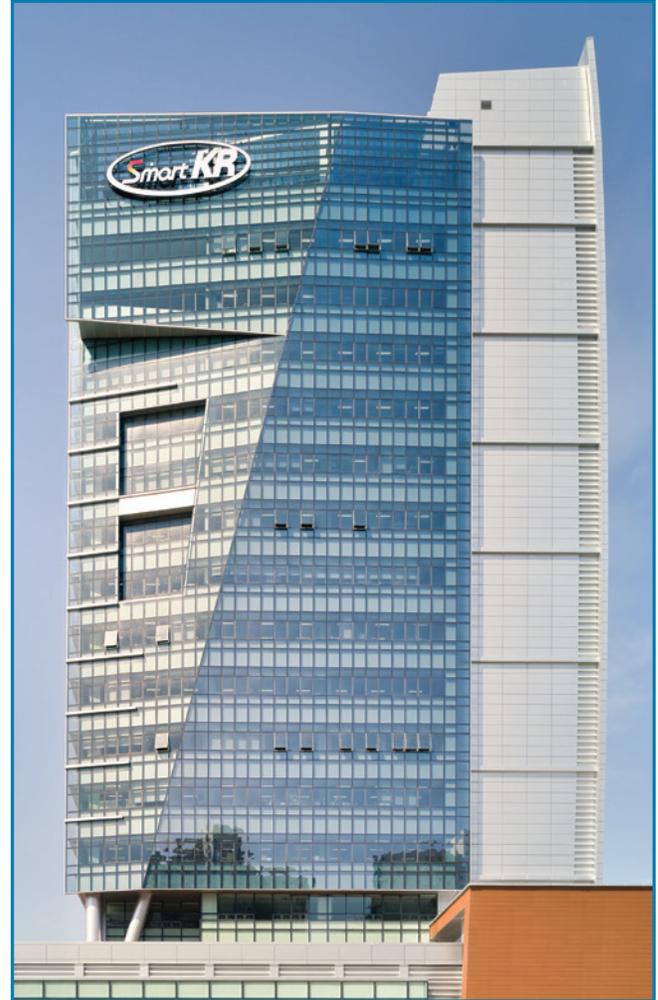
**Solarban® z75** and **Solarban® z50** solar control, low-e glasses provide a steel blue-gray appearance with high levels of visible light transmittance. While the two glasses have a similar appearance, the coatings for each are tuned to provide different levels of solar control performance, enabling architects to specify the optimal choice for local climate and building code demands. Their cool, neutral aesthetic is designed to complement surrounding building materials, including other high-performance glazings.

### Performance Characteristics

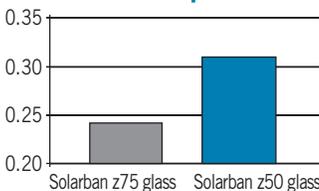
Neutral, cool-gray **Solarban® z75** and **Solarban® z50** glasses excel at controlling glare while offering superior daylighting and solar control properties to support sustainable design. The result is a pair of products that complement a wide range of design scenarios with visible light transmittance (VLT) and solar heat gain coefficients (SHGC) that are as good as or better than competing architectural glasses with the same aesthetic.

In a standard 1-inch insulating glass unit (IGU) with clear glass, **Solarban® z75** glass has a SHGC of 0.24 and VLT of 48 percent, which combine to yield a light to solar gain (LSG) ratio of 2.00. These exceptional solar control characteristics make **Solarban® z75** glass an excellent choice for warmer climate zones with high air-conditioning demands.

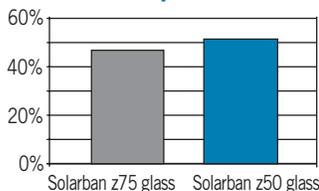
In the same configuration, **Solarban® z50** glass registers a SHGC of 0.32 and VLT of 51, producing an LSG ratio of 1.59. Consequently, **Solarban® z50** glass may be better suited to climate zones that are more equally balanced between heating and cooling seasons.



**SHGC Comparison**



**VLT Comparison**



With varying levels of solar control performance and comparable daylighting characteristics, **Solarban z75** and **Solarban z50** glasses offer architects two options for multiple climate zones featuring the same cool-gray aesthetic.

With interior reflectance levels below 12 percent, **Solarban® z75** and **Solarban® z50** glasses provide building occupants with clear, natural outdoor views. Similarly, because of their neutral color, **Solarban® z75** and **Solarban® z50** glasses harmonize well with other clear and color-neutral solar control, low-e glasses such as **Solarban® 67** and **Solarban® R100** glasses.

#### *Korean Register of Shipping*

*Location: Busan, South Korea*

*Products: Solarban® z75, Solarban® R100 Optiblue®, Solarban® 60 glasses*

*ICF: Jasan Glass*

*Architect: SD Architecture Partners*

*Glazier: Jasan Glass*



**Solarban z75** (left) and **z50** (right) glasses feature a neutral steel blue-gray appearance with varying levels of solar control performance, which enables architects to choose the product best suited to their climate zone.



### LEED and Sustainable Building

The center-of-glass insulating performance of **Solarban® z75** glass enables most glazing designs to meet 2014 California Title 24 energy standards when used as part of a well-designed and constructed glazing system. In addition, **Solarban® z75** and **Solarban® z50** glasses can contribute to achieving credit under LEED v4 (and earlier versions) in the categories of Energy and Atmosphere (EA), Materials and Resources (MR), Indoor Environmental Quality (IEQ) and Innovation in Design (IN) as detailed below.

Category	Feature	Benefit
Energy & Atmosphere (EA)	<b>SHGC:</b> 0.24 Solarban z75 glass 0.32 Solarban z50 glass  <b>U-Value:</b> 0.28 Solarban z75 glass 0.29 Solarban z50 glass	Helps projects achieve Minimum Energy Performance and ASHRAE 50% Advanced Energy Design Guide (AEDG) energy efficiency targets in LEED v4.  Exceptional solar control performance enables buildings to use less energy and control long-term energy costs.
Materials & Resources (MR)	<i>Regional Sourcing</i> <b>Cradle to Cradle Certified (Silver Level)</b> <i>Published Corporate Sustainability Statement</i>	Can be sourced regionally throughout North America through PPG <b>Certified Fabricator Network</b> .  <b>Cradle to Cradle</b> Silver certification (Material Ingredient Optimization). Manufacturer has published a stated commitment to sustainable practices.
Indoor Environmental Quality (IEQ)	<b>VLT:</b> 48% Solarban z75 glass 51% Solarban z50 glass	Provides ample visible light, connecting occupants to undistorted natural outdoor views.
Innovation in Design (IN)		Helps projects earn <b>Innovation in Design</b> credits by contributing to exemplary performance strategies through the selection of environmentally focused products.

### Fabrication and Availability



**Solarban® z75** and **Solarban® z50** glasses are available exclusively through 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. **Solarban® z75** and **Solarban® z50** glasses are manufactured using the sputter-coating process and can be heat-strengthened, tempered and laminated. **Solarban® z50** glass also is available annealed.

### Additional Resources

**Solarban® z75** and **Solarban® z50** glasses are just two of the **Ecological Solutions from PPG™**. For more information or to obtain samples of any PPG glass product, call 1-888-PPG-IDEA or visit [www.ppgideascape.com](http://www.ppgideascape.com).



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

**PPG IdeaScapes®** Integrated products, people and services to inspire your design and color vision.

### Solarban® z75 and Solarban® z50 Glass Performance — Commercial Insulating Glass Unit Comparisons Using 1/4" (6mm) Glass

Insulating Vision Unit Performance Comparisons	1-inch (25mm) units with 1/2-inch (13mm) airspace and two 1/4-inch (6mm) lites											
	Glass Type	Transmittance			Reflectance		U-Value (Imperial)		European U-Value	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				
	SOLARBAN z75 (2) OPTIBLUE + Clear	6	48	19	9	29	0.28	0.26	1.5	0.28	0.24	2.00
	SOLARBAN z50 (2) OPTIBLUE + Clear	14	51	25	8	23	0.29	0.27	1.6	0.36	0.32	1.59

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.ppgideascape.com](http://www.ppgideascape.com) or request our Architectural Glass Catalog.

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