

Aesthetic Description

Solarban® 70XL(2) glass is a revolutionary new Solar Control, Low-E glass that brilliantly combines the clear appearance of transparent, color-neutral glass with an unprecedented combination of solar control and visible light transmittance.

With the introduction of **Solarban** 70XL glass, PPG has expanded the universe of design possibilities in two important ways. First, this new product allows architects to incorporate vast areas of transparent vision glass into a building's design without a requisite expansion of its cooling capabilities. Second, architects can now specify a clear aesthetic while achieving solar control performance that was previously attainable only through the use of tinted glass and a Solar Control Low-E coating in an insulating glass unit.

Like all PPG Solar Control, Low-E glasses, **Solarban** 70XL is manufactured with a Magnetic Sputter Vapor Deposition (MSVD) coating.

Performance Options

When coupled with conventional clear glass in a one-inch insulating glass unit, **Solarban** 70XL glass on the second surface delivers a Solar Heat Gain Coefficient (SHGC) of 0.27 with Visible Light Transmittance (VLT) of 63%. The result is a Light to Solar Gain (LSG) ratio of 2.33, which surpasses, by far, the performance of any other Solar Control Low-E glass on the market today.

For architects who desire a tinted glass appearance and enhanced solar control, **Solarban** 70XL glass can be joined in an insulating glass unit with any tinted glass from PPG, including the four tints from the **Oceans of Color**® collection of spectrally selective tinted glasses, as well as any PPG performance or high-performance earth-toned tint.

Lower Upfront Equipment Costs. Long-Term Energy Savings.

While architects will appreciate **Solarban** 70XL glass for its aesthetic qualities, their clients and building owners will truly value the energy-related cost savings it provides. According to a recent study by an independent energy and environmental research firm, **Solarban** 70XL glass has the potential to reduce annual energy costs by 3 to 5 percent, even when compared to existing top-of-the-line Solar Control Low-E glasses.

However, the greatest benefit of specifying this glass may be realized before the building is even occupied. Thanks to the unequalled solar control characteristics of **Solarban** 70XL glass, architects can specify smaller cooling plants for buildings glazed with this product, potentially reducing upfront capital investment in cooling equipment by as much as 26 percent.



*Clarity, solar control and visible light transmittance are combined in unprecedented fashion in **Solarban** 70XL glass, a revolutionary new Solar Control Low-E glass from PPG. **Solarban** 70XL glass is the first to offer such exceptional levels of solar control and visible light transmittance in a clear, color-neutral glass.*

As a result, architects and building owners who specify **Solarban** 70XL glass instead of other Solar Control Low-E glass products may have their investment repaid in a matter of months.

Eight-story office building, punched window

City	Annual Operating Expenses		Annual Savings	Total HVAC Equipment Cost		Immediate Equipment Savings	1st Year Savings
	SB60	SB70		SB60	SB70		
Atlanta	\$242,487	\$234,960	\$7,527	\$1,661,679	\$1,544,399	\$117,280	\$124,807
Boston	\$190,048	\$186,000	\$4,048	\$1,601,018	\$1,502,412	\$98,606	\$102,654
Chicago	\$301,184	\$292,655	\$8,529	\$1,611,276	\$1,527,418	\$83,858	\$92,387
Denver	\$235,009	\$227,269	\$7,740	\$1,582,957	\$1,491,861	\$91,096	\$98,836
Houston	\$174,185	\$168,453	\$5,732	\$1,710,090	\$1,599,288	\$110,802	\$116,534
Los Angeles	\$209,810	\$200,925	\$8,885	\$1,571,201	\$1,457,953	\$113,248	\$122,133
Philadelphia	\$151,298	\$149,046	\$2,252	\$1,693,899	\$1,549,505	\$144,394	\$146,646
Phoenix	\$323,466	\$314,089	\$9,377	\$1,738,633	\$1,671,091	\$67,542	\$76,919
Seattle	\$243,371	\$237,673	\$5,698	\$1,501,564	\$1,411,229	\$90,335	\$96,033

Total Glass Area: 33,418 ft²

*The chart above is taken from a study conducted by an independent energy and environmental research firm. It shows that **Solarban** 70XL glass can dramatically reduce costs for cooling equipment while generating significant savings on annual cooling costs, even when compared to other high-performance glasses such as **Solarban** 60 Solar Control Low-E Glass. A complete copy of the study, which encompassed a variety of other building and window types in nine distinct climates, is available by calling 1-888-PPG-IDEA (774-4332).*



Fabrication and Availability

Manufactured with an MSVD coating, **Solarban 70XL** glass is available in heat-strengthened and tempered versions, and is readily available as a standard product. It is available through more than 35 PPG Certified Fabricator, PPG Certified Commercial Window Fabricator and PPG Certified Laminator network locations. All PPG Certified Partners are equipped to meet tight construction deadlines and can accelerate the delivery of replacement glass during and after construction.

More Information

PPG has published a paper detailing the results of a comprehensive energy simulation study of **Solarban 70XL**

glass in nine major U.S. cities. To order a copy of *Immediate and Long-Term Economic Advantages of Specifying Solarban® 70XL Solar Control Low E-Glass*, call 1-888-PPG IDEA (774-4332) or call your local PPG Architectural Glass representative.

Additional Resources

Solarban 70XL glass is just one of the **EcoLogical Building Solutions™** from PPG. For more information, or to obtain samples of **Solarban 70XL** glass, call 1-888-PPG-IDEA or visit www.ppgideasces.com.



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

Solarban® 70XL Glass Performance — Commercial Insulating Glass Unit

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			
Coated												
SOLARBAN® 70XL Solar Control Low-E on STARPHIRE® Glass												
SOLARBAN 70 (2) STARPHIRE*	4	63	23	11	35	0.29	0.27	1.65	1.53	0.31	0.27	2.33
SOLARBAN 70 (3) SOLEXIA	3	56	20	11	13	0.29	0.27	1.65	1.53	0.37	0.32	1.75
SOLARBAN 70 (3) ATLANTICA	1	49	17	9	8	0.29	0.27	1.65	1.53	0.32	0.28	1.75
SOLARBAN 70 (3) CARIBIA	2	49	17	9	8	0.29	0.27	1.65	1.53	0.32	0.28	1.75
SOLARBAN 70 (3) AZURIA	4	50	17	9	8	0.29	0.27	1.65	1.53	0.32	0.29	1.72
SOLARBAN 70 (3) Bronze	2	38	15	8	20	0.29	0.27	1.65	1.53	0.30	0.26	1.46
SOLARBAN 70 (3) Gray	2	32	13	7	15	0.29	0.27	1.65	1.53	0.27	0.24	1.33
SOLARBAN 70 (3) OPTIGRAY 23	1	17	7	5	7	0.29	0.27	1.65	1.53	0.19	0.17	1.00
SOLARBAN 70 (3) GRAYLITE	1	10	5	5	11	0.29	0.27	1.65	1.53	0.16	0.14	0.71
VISTACOO™ and SOLARCOOL® with SOLARBAN® 70XL Solar Control Low-E (3)												
VISTACOO (2) AZURIA + Low-E	3	36	13	20	11	0.29	0.27	1.65	1.53	0.27	0.24	1.50
SOLARCOOL (2) SOLEXIA + Low-E	1	21	7	24	16	0.29	0.27	1.65	1.53	0.19	0.17	1.24
SOLARCOOL (2) CARIBIA + Low-E	1	18	6	19	10	0.29	0.27	1.65	1.53	0.18	0.15	1.20
SOLARCOOL (2) AZURIA + Low-E	1	18	6	19	10	0.29	0.27	1.65	1.53	0.18	0.15	1.20
SOLARCOOL (2) Bronze + Low-E	1	14	5	14	19	0.29	0.27	1.65	1.53	0.17	0.15	0.93
SOLARCOOL (2) Gray + Low-E	1	12	5	11	15	0.29	0.27	1.65	1.53	0.16	0.14	0.86
SOLARCOOL (2) GRAYLITE + Low-E	< 1	4	2	5	10	0.29	0.27	1.65	1.53	0.12	0.10	0.40

* **Solarban 70XL** requires the coating on **Starphire** glass, interior lite is clear.

Performance data calculated 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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