

# Less green. For less green.



University of Kansas Medical Center Health Education Building | Kansas City, Kansas | Shown: Solarban® 72 Starphire® glass\*  
Architects: Helix Architecture + Design and CO Architects | Vitro Certified™ Fabricator: Insulite Glass Co. | Glazing Contractor: Jim Plunkett Incorporated

\*Like Solarban® Starphire® glass, Solarban® Acuity™ glass delivers a distinctive, highly transparent low-iron aesthetic.





# Find affordable clarity in the *Solarban® Acuity™* low-e glass series.

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The right glass can be the centerpiece of your design. Combining Vitro's new *Acuity™* low-iron glass — which is 60 percent less green than ordinary clear glass — with any *Solarban®* low-e coating, can provide the truly clear look you want with the outstanding energy and code performance you need.

## An Engineered System

Leveraging 30 years of *Starphire Ultra-Clear®* glass manufacturing experience, *Acuity™* low-iron glass is specifically engineered for vision glazings, both as a substrate for *Solarban®* coatings and for all lites in an insulating glass unit (IGU) or laminated configuration. This combination provides excellent transparency and clarity at an affordable upcharge from coated clear glass.

## Where to Use *Solarban® Acuity™* Glass

*Solarban® Acuity™* glass is optimized for vision glazings or any exterior application where excellent clarity and low-e performance are needed (similar to *Solarban® Starphire®* glasses, shown on cover and below).

Consider *Solarban® Acuity™* glass for the following applications:

- Office buildings and institutions
- Hotels
- Schools
- Luxury condos & mixed-use
- Entrances & retail storefronts

*Solarban® Acuity™* glass also is ideal for distinctive exterior applications, such as atriums, skylights and spandrel glass.



Hoyt Street Yards No. 2 | Portland, Oregon - USA | Architect: Bora  
Vitro Certified™ Fabricator: Vitrum Industries Ltd.



California Academy of Sciences | San Francisco, California - USA  
Architects: Renzo Piano Building Workshop and Stantec Architecture

# Optimizing Cost, Clarity & Performance

## Cost Considerations

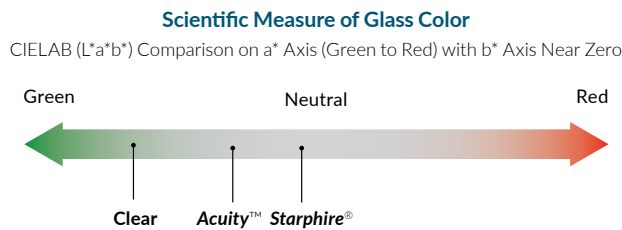
Vitro market research indicates the installed cost of a standard glass and metal curtainwall averages \$90 per square foot nationally. Upgrading a low-e coated clear IGU to a *Solarban® Acuity™* glass unit typically will increase the total installed curtainwall cost by only \$1 to \$2 per square foot.

This optimization of cost, clarity and performance allows you to make *Solarban® Acuity™* glass the centerpiece of your façade design.

## Design Considerations

*Acuity™* low-iron glass is 60 percent less green than standard “clear” glass. *Solarban® Acuity™* glass achieves excellent clarity and 1 to 3 percent higher visible light transmittance (VLT) than coated clear glass.

For the ultimate in transparent low-iron glass, *Starphire®* glass is 87 percent less green and also can be coated with *Solarban®* low-e coatings.



## Fabrication & Availability

Available in 6, 8 and 10 millimeter thicknesses, *Solarban® Acuity™* glasses are stocked at all Vitro facilities for immediate shipment with the same lead time as all *Solarban®* glass products. *Acuity™* glass also can be cut, drilled, heat-treated, laminated and bent, just like any low-iron glass or glass substrate.

All *Solarban®* solar control low-e glasses are available through the *Vitro Certified™* Network.

For more information about *Solarban® Acuity™* low-iron glass and other architectural glasses by Vitro Glass, visit [vitroglazings.com/acuity](http://vitroglazings.com/acuity), or call 1-855-VTRO-GLS (887-6457).

### COST

**\$1-2**

per square foot  
cost increase\*

\*In total installed glass and metal curtainwall costs (compared to a low-e coated clear insulating glass unit)

### APPEARANCE

**60% ↓**

Less Green  
than Clear Glass\*

\*Comparison of uncoated substrates



## Supporting Sustainable Design

Vitro Architectural Glass provides abundant opportunities for architects and building owners to realize their sustainability objectives.

**Energy Use & Operating Cost Reduction:** High-performance glasses by Vitro are engineered to facilitate downsized mechanical equipment costs, leading to reduced long-term energy costs. For glass comparison and configuration tools, visit [tools.vitroglazings.com](https://tools.vitroglazings.com).

**Sustainability Documentation:** Vitro Architectural Glass is the first U.S. float glass manufacturer to have its entire selection of products recognized by the *Cradle to Cradle Certified™* program, and the first in North America to publish third-party verified EPDs for its Flat Glass and Processed Glass products.

For additional credit opportunities and supporting documentation, visit [vitroglazings.com/LEED](https://vitroglazings.com/LEED)

LEED Credit Opportunities			
Possible Points	LEED Credit	Solarban® Acuity™ Feature	Path/Option Satisfied
18	<b>Energy &amp; Atmosphere (EA)</b> Optimize Energy Performance	Excellent SHGC, U-value and Tvis performance	Whole Building Energy Simulation (Option 1) or Prescriptive Compliance: ASHRAE Advanced Energy Design Guide (Option 2)
5	<b>Innovation (IN)</b> Innovation in Design	Exceeds minimum performance mandated by local energy codes	Innovation (Option 1), Pilot (Option 2) and Exemplary Performance (Option 3)
3	<b>Indoor Environmental Quality (EQ)</b> Daylight	Exhibits high light transmission	Simulation: Spatial Daylight Autonomy and Annual Sunlight Exposure (Option 1), Simulation: Illuminance Calculations (Option 2) or Measurement (Option 3)

## Performance Data for Solarban® Acuity™ Low-E Low-Iron Glass

Insulating Glass Unit (IGU) Performance Comparisons   1-inch (25 mm) units with 1/2-inch (13 mm) airspace and two 1/4-inch (6 mm) lites									
Glass Type		Visible Light Transmittance (VLT) %	Visible Light Reflectance		(Btu/hr•ft²•°F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Light to Solar Gain (LSG)	
Outdoor Lite: Coating if Any (Surface) Glass	Indoor Lite: Coating if Any (Surface) Glass		Exterior %	Interior %	Winter Nighttime	Winter Argon			
Coated									
SOLARBAN® 60 Solar Control Low-E Glass									
	SOLARBAN 60 (2) ACUITY + ACUITY		73%	11%	12%	0.29	0.24	0.41	1.78
SOLARBAN® 67 Solar Control Low-E Glass									
	SOLARBAN 67 (2) ACUITY + ACUITY		56%	19%	16%	0.29	0.24	0.30	1.87
SOLARBAN® 72 Solar Control Low-E Glass									
	SOLARBAN 72 (2) ACUITY + ACUITY		67%	13%	14%	0.28	0.24	0.28	2.39
SOLARBAN® 90 Solar Control Low-E Glass									
	SOLARBAN 90 (2) ACUITY + ACUITY		53%	12%	19%	0.29	0.24	0.23	2.30
SOLARBAN® R100 Solar Control Low-E Glass									
	SOLARBAN R100 (2) ACUITY + ACUITY		43%	33%	13%	0.29	0.25	0.23	1.87

All performance data calculated using LBNL Window 7.3 software and represents center of glass performance data. For detailed information on the methodologies used to calculate the aesthetic and performance values in this table, please visit [vitroglazings.com](https://vitroglazings.com) or request our Architectural Glass Catalog.

## Additional Resources

To obtain samples of any Vitro Glass product, call 1-855-VTRO-GLS (877-6457) or visit [samples.vitroglazings.com](https://samples.vitroglazings.com). For videos, design insights and technical education, visit the Vitro Glass Education Center at [glassed.vitroglazings.com](https://glassed.vitroglazings.com). For glass comparison and configuration tools, visit [tools.vitroglazings.com](https://tools.vitroglazings.com).

