

Less green. For less green.



NC A&T Engineering Research and Innovation Complex (ERIC) | Greensboro, North Carolina | Solarban® 90 Acuity® Glass
Architect: EYP | Vitro Certified® Fabricator: Press Glass | Glazing Contractor: Charlotte Glass | Photographer: Jim Sink Photography



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

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.

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. For configurations that require exposed edges, such as interior applications, Vitro recommends *Starphire Ultra-Clear®* low-iron glass for its signature azure blue edge and sparkling clarity.



Parkland Health and Hospital System Moody Outpatient Center
Dallas, Texas | *Solarban® 90 Acuity®* Glass | Architect: HKS
Vitro Certified® Fabricator: Hartung Glass Industries (formerly NWI)
Glazing Contractor: IWR North America
Photographer: Tom Harris Architectural Photography



SAFE Credit Union Performing Arts Center | Sacramento, California
Solarban® 90 Acuity® Glass | Architect: DLR Group
Vitro Certified® Fabricator: Glassfab Tempering Services
Glazing Contractor: Bagatelos | Photographer: Tom Kessler

Optimizing Cost, Clarity & Performance

Cost Considerations

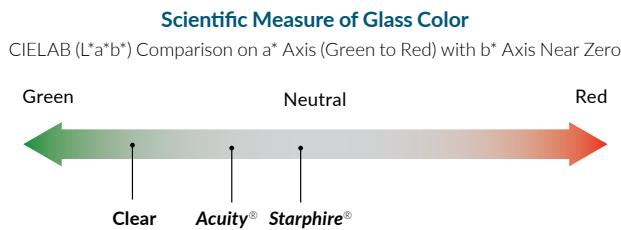
Vitro market research indicates the installed cost of a standard glass and metal curtainwall averages \$90 per square foot nationally. Upgrading a low-e coated clear IGU to a *Solarban® Acuity®* glass unit typically will increase the total installed curtainwall cost by only \$1 to \$2 per square foot.

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, 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.

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

LEED® Credit Opportunities			
Possible Points	LEED Credit	Solarban® Acuity® Feature	Path/Option Satisfied
18	Energy & Atmosphere (EA) 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	Innovation (IN) Innovation in Design	Exceeds minimum performance mandated by local energy codes	Innovation (Option 1), Pilot (Option 2) and Exemplary Performance (Option 3)
3	Indoor Environmental Quality (EQ) 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									
Outdoor Lite: Coating if Any (Surface) Glass	Glass Type		Visible Light Transmittance (VLT) %	Visible Light Reflectance		(Btu/hr•ft²•°F) NFRC U-Value		Solar Heat Gain Coefficient (SHGC)	Color Rendering Index (CRI)
	+	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	97
SOLARBAN® R67 Solar Control Low-e Glass									
		SOLARBAN R67 (2) ACUITY + ACUITY	56%	19%	16%	0.29	0.24	0.30	94
SOLARBAN® 72 Solar Control Low-e Glass									
		SOLARBAN 72 (2) ACUITY + ACUITY	67%	13%	14%	0.28	0.24	0.28	94
SOLARBAN® 90 Solar Control Low-e Glass									
		SOLARBAN 90 (2) ACUITY + ACUITY	53%	12%	19%	0.29	0.24	0.23	94
SOLARBAN® R77 Neutral-Reflective Low-e Glass									
		SOLARBAN R77 (2) ACUITY + ACUITY	49%	26%	16%	0.29	0.24	0.25	95
SOLARBAN® R100 Neutral-Reflective Low-e Glass									
		SOLARBAN R100 (2) ACUITY + ACUITY	43%	33%	13%	0.29	0.25	0.23	92

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 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. For videos, design insights and technical education, visit the Vitro Glass Education Center at glassed.vitroglazings.com. For glass comparison and configuration tools, visit tools.vitroglazings.com.

