

Product Data Sheet



EXTERIOR GLAZINGS

Vision Glazings

For brilliantly transparent façades, curtainwalls and commercial windows, no glazing product comes close to *Starphire Ultra-Clear*® glass. To optimize performance and clarity, specify *Solarban*® *Starphire*® glass for a 2 to 4 percent improvement in visible light transmittance (VLT) compared to *Solarban*® clear glass.

Decorative & Bird-friendly Glass

Starphire® glass also is ideal for decorative exterior applications, such as dichroic, acid-etched and bird-friendly glasses. Vitro partners with Walker Glass to produce AviProtek® E bird-friendly, solar control low-e glass with *Solarban*® coatings.

Entrance Glazings

For lobbies and reception areas, *Starphire*® glass provides an unmatched combination of function and visual impact. For glass doors, *Starphire*® glass sets a new standard thanks to its jewel-like clarity and sparkling blue edge.

Spandrel Glazings

For unique spandrel applications, whites, pastels and earth-tone opacifiers can be employed on *Starphire*® glass without the green hue of ordinary clear glass. *Starphire*® glass allows the true colors of coatings or frits to shine through. For a wide range of brilliant colors, *Starphire*® glass also can be combined with OPACI-COAT-300® spandrel coatings by ICD High Performance Coatings.



Vision Glazings



Spandrel Glazings

Skylite Glazings

From art galleries and convention centers to corporate offices and shopping malls, when you want to bring the beauty and brightness of the outdoors into interiors, skylites with *Starphire*® glass are “clearly” remarkable, regardless of thickness.

Heavy Glass

At thicknesses between 3.2 mm and 19 mm, *Starphire Ultra-Clear*® glass transmits ample visible light to deliver visual excitement and create a sense of connectivity between spaces. Unlike conventional clear glass, the surface clarity of *Starphire*® glass becomes more apparent as the glass gets thicker.

Supporting Sustainable Design

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

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 Environmental Product Declarations (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	<i>Starphire</i> ® Glass Feature	Path/Option Satisfied
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)
2	Materials & Resources (MR) Building Product Disclosure & Optimization – Material Ingredients	<i>Cradle to Cradle Certified</i> ™	Material Ingredient Reporting (Option 1) or Product Manufacturer Supply Chain Optimization (Option 3)
2	Materials & Resources (MR) Building Product Disclosure & Optimization – Environmental Product Declarations	Environmental Product Declaration (EPD)	Environmental Product Declarations (EPD) (Option 1)

Exterior *Starphire*[®] Glass

Monolithic Glass Comparison									
Glass Thickness		Visible Light Transmittance (VLT) ² %	Visible Light Reflectance ²		(Btu/hr·ft ² ·°F) NFRC U-Value ³		Solar Heat Gain Coefficient (SHGC) ⁴	Light-to-Solar Gain (LSG) ⁵	
Inches	mm		Exterior %	Interior %	Winter Nighttime	Winter Argon			
Uncoated									
Starphire[®] Glass									
	1/8	3	91	8	8	1.04	NA	0.91	1.00
	5/32	4	91	8	8	1.04	NA	0.91	1.00
	3/16	5	91	8	8	1.03	NA	0.90	1.01
	1/4	6	91	8	8	1.02	NA	0.90	1.01
	5/16	8	91	8	8	1.01	NA	0.89	1.02
	3/8	10	91	8	8	1.00	NA	0.89	1.02
	1/2	12	90	8	8	0.98	NA	0.88	1.02
	5/8	16	90	8	8	0.97	NA	0.87	1.03
	3/4	19	90	8	8	0.95	NA	0.86	1.05

Insulating Glass Unit 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) ² %	Visible Light Reflectance ²		(Btu/hr·ft ² ·°F) NFRC U-Value ³		Solar Heat Gain Coefficient (SHGC) ⁴	Light-to-Solar Gain (LSG) ⁵
	+	Indoor Lite: Coating if Any (Surface) Glass		Exterior %	Interior %	Winter Nighttime	Winter Argon		
Coated									
	Solarban [®] 60 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		74	11	12	0.29	0.24	0.41	1.80
	Solarban [®] 67 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		57	20	16	0.29	0.24	0.30	1.90
	Solarban [®] 72 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		68	13	14	0.28	0.24	0.28	2.43
	Solarban [®] 90 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		54	13	20	0.29	0.24	0.23	2.35
	Solarban [®] R77 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		50	26	16	0.29	0.24	0.25	2.00
	Solarban [®] R100 (2) <i>Starphire</i> [®] + <i>Starphire</i> [®]		44	33	14	0.29	0.25	0.23	1.91

All performance data calculated using LBNL Window 7.3 software representing 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.

Fabrication and Availability

Starphire[®] glass is available in thicknesses from 3.2 mm to 19 mm and is stocked regionally to assure consistent supply reliability. *Starphire*[®] glass can be cut, edge polished, drilled, heat treated, laminated, fritted, magnetron sputtered vacuum deposition (MSVD) coated and insulated to suit a wide variety of applications. For *Starphire*[®] glass samples or fabrication information, visit vitroglazings.com or contact our Architectural Services Hotline at 1-855-VTRO-GLS (887-6457).

Solarban[®] *Starphire*[®] glasses are available through the Vitro Certified™ Network. Vitro Certified™ Fabricators can meet tight construction deadlines and accelerate the delivery of replacement glass before, during and after construction. *Solarban*[®] *Starphire*[®] glass must be heat-treated.

For more information about *Starphire Ultra-Clear*[®] glass and other *Cradle to Cradle Certified*[™] architectural glasses by Vitro Glass, visit vitroglazings.com, or call 1-855-VTRO-GLS (887-6457).

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 glossed.vitroglazings.com. For glass comparison and configuration tools, visit tools.vitroglazings.com.

