



QuadSpan™

Product Data Sheet

Polycarbonate Skylight Systems

QuadSpan™ translucent skylight systems provide soft, diffuse natural light to building interiors while offering the versatility to meet the functional and creative needs of nearly any building design. Systems are available in a variety of configurations and can be customized to meet a wide range of performance and aesthetic needs, including ambient sound control, custom colors and graphics, specialty systems for hurricane and blast protection, and more. Best of all, QuadSpan™ is also easy to install and maintain.

QuadSpan™ systems utilize glazing panels that are pre-assembled and designed to span long distances. They also feature Removable Skin Technology (RST) that allows the interior or exterior glazing to be replaced independently, allowing for repairs and updates without opening up interior spaces to the elements. QuadSpan™ systems are available in a wide variety of configurations, including vaults, single slopes, pyramids, polygons, ridges and curved systems, as well as fully custom designs. The glazing panels are held in place with aluminum framing, and framing finish options include anodized and painted finishes in standard and custom colors.

Product Specifications

Panel Thicknesses	4" (102mm) and 2-3/4" (70mm)
Panel Width	23-3/4" (600mm) wide
Panel Weight	1.5 to 2lbs/ft²
Panel Assembly	Removable Skin Technology - remove exterior panel while the interior remains Either factory panelized or field built assemblies utilizing a structural, double-standing-seam, dry glazed and sealed joint
Frame Depth	4" System: 5-7/16" 2-3/4" System: 4-1/8"
Frame Insulation	Optional Thermally Improved Closure with Foam Insulation
System Height	Typical max of 38' - Contact us to check feasibility for longer applications
Exterior & Interior Skin	Nano-Cell 10mm (Exterior) and 8mm (Interior)
Glazing Finish	Standard: Matte Non-Standard: Non-Matte
Glazing Colors	Standard: Clear, Ice White, White Non-Standard: Blue, Green, Reflective Gray, Gray, Bronze
Bi-Color Option	Interior and exterior glazing layers can be the same or different colors
Aluminum Finishes	Painted: AAMA 2605 - standard and custom colors (mica available) Anodized: AAMA 611 Class 1 - clear and color options
Material Content	Aluminum: Between 60 and 75% Recycled Content Glazing: All virgin material
Warranty	10 year leak + glazing light transmission % 1 to 20 year aluminum finish depending on selection
Additional Options	Flush panel joint or exposed mullion Improved ambient sound control or thermal insulation
Material Source	Kingspan Light + Air N.A. products are manufactured in the USA and most are designed with consideration for Buy America (BAA) and Build America - Buy America (BABA) requirements. BABA Compliance is project-specific. Please contact us to verify the compliance of your configuration.



Test Data

Performance Metric	Standard	2.75" System	4" System
Air Permeability	ASTM E 283	0.01 CFM/sf @ 1.57 & 6.24 PSF	0.12CFM/sf @ 1.57psf & 0.28CFM/sf @ 6.24psf
Water Permeability	ASTM E 331	Pass @ 15 psf	Pass @ 10 psf
Ultraviolet Transmission	EN 410	< 0.05%	
Hail Impact	ASTM E 822	Warranted to resist breakage up to 1-3/16" @ 55mph Tested to remain intact up to 3" @ 90mph	
Acoustic Insulation	ASTM E 90	STC: 22, 24 or 25 OITC: 16 or 17	STC: 25, 28 or 32 OITC: 17, 21, 22, or 25
Florida Product Approval (FPA)	TAS 201	Pass Large Missile Level D	Pass Large Missile Level D
	TAS 202 + 203	Up to +/- 110psf	Up to +/- 52.5psf
	N/A	FPA#: FL8804-R8 HVHZ Approved	FPA#: FL8804-R8 HVHZ Approved
TX Dept of Insurance	TDI	Listed	Listed
Fall Protection	ASTM E 661 in reference to OSHA: 1926.502(i)(2), and/or CalOSHA: Sections 1632(b)(3), 3212(b)	800lb. Concentrated Load	
ICC Evaluation	N/A	ICC-ESR 4745	
Environmental Product Declaration	ISO 14025 and ISO 21930	Available	
Roof Assembly Classification	ASTM E 108	Class A Roof Construction (optional upgrade) Class C Roof Construction (standard)	

Fire Testing Performance Metric	Standard	Code Requirement	Result**	Classification
Ignition Temp	ASTM D 1929	Min 650° F	950° F	Pass
Smoke Development	ASTM D 2843	Max 75	39.5	Pass
Flame Spread & Smoke Developed	ASTM E 84	Max Flame Spread: 25 Max Smoke Developed: 450	Flame Spread: 0 Smoke Dev: 40	A
Burning Rate	ASTM D 635	Max 2-1/2" (CC2)	0"	CC1

**Note: Panel types have varying results, however all panels used in QuadSpan™ systems meet or exceed these values.

QuadSpan™ Span Chart*		
PSF	2.75" System	4" System
20	6.33'	8.33'
30	5.72'	5.76'
40	4.33'	4.33'
50	3.42'	3.42'
60	2.88'	2.88'
70	2.46'	2.46'
80	2.14'	2.14'
90	1.9'	1.9'

*Guidelines only - contact us to confirm project specific spans.

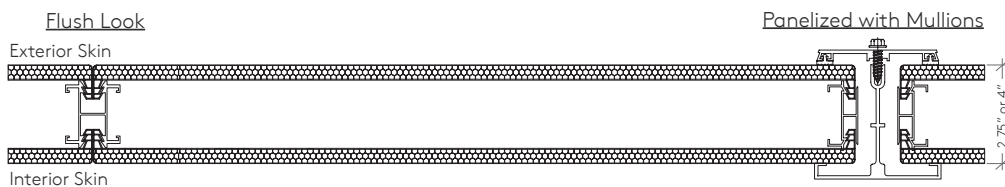


Photo by Benny Chan - Fotoware



Thermal Performance Data

QuadSpan™ 2.75" Systems - NFRC Certified System Values (KLA-M-4)						
Exterior Glazing	Interior Glazing	Insulation	U-factor	SHGC	VT	CFR
Clear (Matte)	Clear (Matte)	Air	0.31	0.38	0.36	21
White (Matte)	Clear (Matte)	Air	0.31	0.24	0.15	21
Ice White (Matte)	Clear (Matte)	Air	0.31	0.37	0.33	21
Green (Matte)	Clear (Matte)	Air	0.31	0.35	0.25	21
Clear (Matte)	White (Matte)	Air	0.31	0.36	0.21	21
Clear (Matte)	Ice White (Matte)	Air	0.31	0.37	0.33	21
White (Matte)	White (Matte)	Air	0.31	0.22	0.11	21
White (Matte)	Ice White (Matte)	Air	0.31	0.27	0.14	21
Ice White (Matte)	White (Matte)	Air	0.31	0.33	0.21	21
Ice White (Matte)	Ice White (Matte)	Air	0.31	0.35	0.29	21
Clear (Matte)	Clear (Matte)	1 Layer Nano 1-28	0.23	0.28	0.24	27
Clear (Matte)	Clear (Matte)	2 Layer Nano 1-28	0.2	0.20	0.18	27

*Values assume an anodized frame + Matte finish glazing. Please see the NFRC Certified Products Directory (CPD) for complete offering.



QuadSpan™ 4" Systems - NFRC Certified System Values (KLA-M-14)							Center of Glazing		
Exterior Color	Interior Color	Insulation	U-factor	SHGC	VT	CR	U-Factor	SHGC	VT
Clear (Matte)	Clear (Matte)	Air	0.27	0.38	0.37	58	0.25	0.41	0.40
Clear (Matte)	White (Matte)	Air	0.27	0.32	0.22	58	0.25	0.34	0.23
Clear (Matte)	Ice White (Matte)	Air	0.27	0.36	0.34	58	0.25	0.39	0.36
White (Matte)	Clear (Matte)	Air	0.27	0.24	0.15	58	0.25	0.25	0.16
White (Matte)	White (Matte)	Air	0.27	0.20	0.10	58	0.25	0.22	0.11
White (Matte)	Ice White (Matte)	Air	0.27	0.27	0.14	58	0.25	0.28	0.15
Ice White (Matte)	Clear (Matte)	Air	0.27	0.36	0.32	58	0.25	0.28	0.15
Ice White (Matte)	White (Matte)	Air	0.27	0.32	0.19	58	0.25	0.35	0.21
Ice White (Matte)	Ice White (Matte)	Air	0.27	0.35	0.30	58	0.25	0.37	0.32
White (Matte)	Clear (Matte)	Air	0.27	0.34	0.26	58	0.25	0.36	0.28
Clear (Matte)	Clear (Matte)	1L Nano 1-28	0.22	0.28	0.25	62	0.20	0.30	0.27
Clear (Matte)	Clear (Matte)	2L Nano 1-28	0.16	0.20	0.18	69	0.14	0.21	0.20
Clear (Matte)	Clear (Matte)	Class A	0.23	0.38	0.29	61	0.21	0.41	0.31
Clear (Matte)	Clear (Matte)	STC 6mm	0.22	0.38	0.29	62	0.20	0.40	0.31
Clear (Matte)	Clear (Matte)	STC 12+4mm	0.19	0.34	0.25	64	0.18	0.36	0.26

IECC, ASHRAE, and COMCheck energy compliance methods always refer to NFRC Certified System Values. Center of Glazing Values are included here only for comparison purposes



Color + Finish Options

Multiwall Polycarbonate Sheet Color Options:

Polycarbonate sheet colors are available in three standard colors as well as special order and custom options (see examples at right). Please contact us for additional information.



(Left to Right: Clear Matte, Ice White Matte, White Matte + Non-Standard Colors: Green Matte and Blue Matte. *NOTE: Colors shown above are for illustrative purposes only. Actual color may vary.)

Multi-Color Panel Options

While glazing color combinations offer an opportunity for creativity, they also serve a practical purpose when tailoring the performance of the system. Each glazing color has an inherent solar performance. By varying the combination of the glazing colors for the interior and exterior, you can create unique visual elements while also customizing the solar performance of the system. The glazing's matte finish will increase its ability to diffuse light and eliminate glare as well.



*Custom colors shown.

Aluminum Finish Color Options

Painted finishes meet AAMA 2605 and are available in a wide range of colors. They offer excellent color retention, salt-spray resistance, simple field touch-up and repainting capabilities, and are applied in facilities that use air capture systems to destroy VOCs with a regenerative thermal oxidizer. Anodized options are also available. Please review our Finish Color Options brochure for additional details.



Specialty Configurations

Whether you need a system that can handle extreme climates, the unique demands of a military facilities, or anything in between, we can help you achieve your performance goals.

- Insulated panels to enhance thermal performance
- Sound Reduction (STC) configurations

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