



UniQuad® Product Data Sheet

Polycarbonate Wall Systems

UniQuad® translucent wall 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 sound control, custom colors and graphics, specialty systems for hurricane and blast protection, and more. Best of all, UniQuad® wall systems are easy to install and maintain.

UniQuad® polycarbonate translucent wall systems feature two polycarbonate multiwall sheets connected with internal aluminum supports to create unitized glazing panels. Glazing options include a variety of standard and custom colors and panels can be configured with insulation options for enhanced performance in more challenging climates. The glazing panels are held in place with aluminum framing, and framing finish options include anodize and paint in standard and custom colors. Paint finishes meet AAMA 2603/2604/2605 standards.

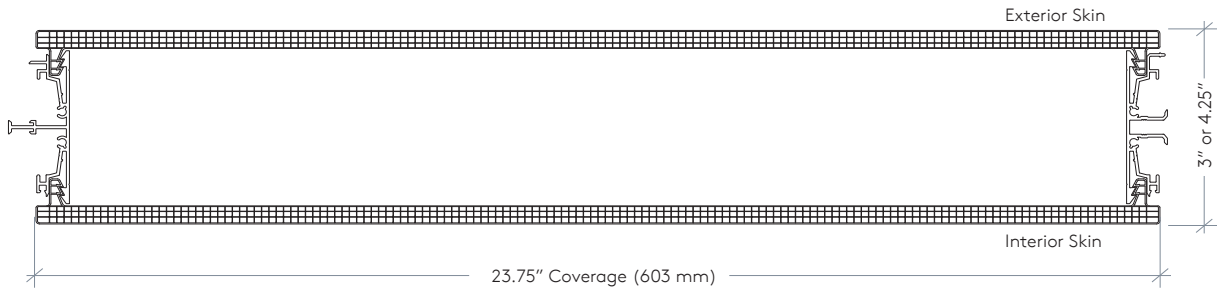
Product Specifications	
Panel Thicknesses	4-1/4" (108mm), 3" (76mm), or 2-3/4" (70mm)
Panel Width	Nominal 23-3/4" (603mm) wide
Panel Weight	1.5 to 2lbs/ft ²
Panel Assembly	Removable Skin Technology - remove exterior panel while the interior remains Factory unitized with structural, mechanically interlocking, dry glazed, and sealed joint
Frame Depth	4-1/4" System: 5-3/8" 3" System: 4" 2-3/4" Window System: 3.06"
System Height	Typical max of 38' - Contact us to check feasibility for taller applications
Exterior & Interior Skin	8mm or 10mm Polycarbonate with Nano-Cell Extrusion
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	AAMA 2603, 2604, and 2605 in standard and custom colors, (mica available), AAMA 611 Class 1 Clear and Colored Anodized
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
Optional Upgrades	Flush Panel Joint or Exposed Mullion Increased Sound or Thermal Insulation



Test Data

Performance Metric	Standard	UniQuad® Window	3" UniQuad®	4" UniQuad®
Center of Glazing Thermal Insulation	ASTM C 1363	0.27, 0.18, or 0.14 Btu/hr*ft2°F		0.23, 0.19, or 0.13 Btu/hr*ft2°F
Air Permeability	ASTM E 283	0.02 CFM/sf @ 1.57psf	0.04 CFM/sf @ 1.57psf	0.02 CFM/sf @ 1.57 & 6.24psf
Water Permeability	ASTM E 331	Pass @ 15psf	Pass @ 6.24psf	Pass @ 6.24psf & 15psf
Acoustic Insulation	ASTM E 90	STC: 22, 24, or 25 OITC: 16 or 17	STC: 24 OITC: 17	STC: 27, 28, 29, or 35 OITC: 19, 21, 22, or 27
Florida Product Approval (FPA)	TAS 201	Pass Large Missile Level D	Pass Large Missile Level D	Pass Large Missile Level D
	TAS 202 + 203	N/A	Up to +40/-60psf	Up to +/-95psf
	Listing Number		FPA#: FL30048 HVHZ Approved	FPA#: FL17695 HVHZ Approved
TX Dept of Insurance	TDI	N/A	Listed	Listed
Reaction to Fire**	ASTM D 1929 ASTM D 2843 ASTM E 84 ASTM D 635	Complies with Ignition Temperature (950F Actual > 650F Min Required) Complies with Smoke Development Index (62.7 Actual < 75 Max Required) Interior Flame Spread Index: 0 - Smoke Developed Index: 40 (Class A) Combustibility Class 1 (CC1) (Zero Burn Rate Actual < 1" Required)		
ICC Evaluation	N/A	ICC-ESR 4745		

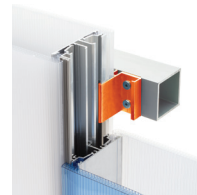
**Note: Panel types have varying results, however all panels used in UniQuad® systems meet or exceed these values.



The two-piece frame system consists of a sill and sub-sill. It is designed so that the necessary fasteners don't penetrate the sill frame.



Our concealed UniClip™ is capable of withstanding heavy loads. The specialized design enables the panels to be installed quickly and removes the need for structural frame caps.



The panel clip prevents the glazing from breaking under extreme clip loads. The metal-to-metal connection enables the glazing to freely expand and contract and increases the system's ability to withstand high loads and span floor-to-slab.



Thermal Performance Data

System	NFRC CPD #	Frame Finish	Exterior Glazing	Interior Glazing	Insert	U-factor	SHGC	VT	CR
UniQuad® 3" and UniQuad® Window	KLA-M-2	Anodized	Clear Matte	Clear Matte		0.31	0.35	0.33	40
		Anodized	Clear Matte	Clear Matte	1 Layer Nano 1-28	0.23	0.27	0.23	44
		Anodized	Clear Matte	White Matte		0.31	0.30	0.18	40
		Anodized	Clear Matte	Ice White Matte		0.31	0.35	0.28	40
		Anodized	White Matte	Clear Matte		0.31	0.28	0.17	40
		Anodized	White Matte	White Matte		0.31	0.22	0.1	40
		Anodized	White Matte	Ice White Matte		0.31	0.28	0.14	40
UniQuad® 4"	KLA-M-5	Anodized	Clear Matte	Clear Matte		0.29	0.34	0.34	40
		Anodized	Clear Matte	White Matte		0.29	0.32	0.19	40
		Anodized	Clear Matte	Ice White Matte		0.29	0.34	0.28	40
		Anodized	White Matte	Clear Matte		0.29	0.30	0.16	40
		Anodized	White Matte	White Matte		0.29	0.23	0.10	40
		Anodized	White Matte	Ice White Matte		0.29	0.27	0.13	40
		Anodized	Ice White Matte	Clear Matte		0.29	0.34	0.29	40
		Anodized	Ice White Matte	White Matte		0.29	0.29	0.16	40
		Anodized	Ice White Matte	Ice White Matte		0.29	0.33	0.24	40
		Anodized	Clear Matte	Clear Matte	1 Layer Nano 1-28	0.25	0.25	0.21	42
		Anodized	Clear Matte	Clear Matte	2 Layer Nano 1-28	0.19	0.20	0.16	44
		Anodized	Clear Matte	Clear Matte	2 Layer Super Nano 1-22	0.19	0.18	0.11	44

*Values assume a thermally broken and anodized frame + Matte finish glazing. Please see the NFRC Certified Products Directory (CPD) using the above CPD#s for complete offering.

PSF	Single Span			Multi-Span	
	4" UQ	3" UQ	UQ Window	4" UQ	3" UQ
20	12.5'	8'	7'	12.5'	8'
30	11'	7'	6'	11'	7'
40	10'	6.33'	5.5'	10'	6.33'
50	9.25'	5.83'	5.17'	8'	5.83'
60	8.67'	5.5'	4.75'	6.75'	5.5'
70	8'	5'	4.42'	5.75'	5'
80	7.5'	4.82'	4'	5'	4.82'
90	7'	4.5'	3.82'	4.5'	4.5'

*Guidelines only - confirm project-specific spans with Kingspan Light + Air



Color + Finish Options

Multiwall Polycarbonate Sheet Color Options:

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



(Left to Right: Clear, Ice White, White, Green, Blue. *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 above.

Aluminum Finish Color Options

Paint finishes are available in a wide range of colors, 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. 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.

- Additional Insulation
- Sound Reduction (STC)



Additional Insulation

Graphics + LED Lighting*

Graphics and LED lighting can be useful in creating an iconic look or to reinforce a brand on the system's interior or exterior panels, making your building stand out as a beacon of creativity, day or night.

*Graphics and LED lighting provided by third party vendors. Contact KLA for details.



Kingspan Light + Air

North American Headquarters
28662 N. Ballard Dr.
Lake Forest, IL 60045
Toll Free: +1 800 759 6985
T: +1 847 816 1060
E: info@kingspanlightandair.us
www.kingspanlightandair.us



To ensure you are viewing the most recent and accurate product information, please scan the QR code above

Care has been taken to ensure that the contents of this publication are accurate, but Kingspan Limited and its subsidiary companies do not accept responsibility for errors or for information that is found to be misleading. Suggestions for, or description of, the end use or application of products or methods of working are for information only and Kingspan Limited and its subsidiaries accept no liability in respect thereof.

For the product offering in other markets please contact your local sales representative or visit kingspan.com

© Kingspan and the Lion Device are Registered Trademarks of the Kingspan Group plc in the US, Canada and other countries.

© Kingspan Light + Air

MKT-PDS-0010-2507

