



PentaClad™

Product Data Sheet

Polycarbonate Cladding Systems

PentaClad™ polycarbonate cladding system offers an effective solution for enclosing non-conditioned spaces, or cladding over other insulation and air/water barriers.

The single panel design uses Nano-Cell® technology to provide durability and impact resistance plus balanced distribution of natural light. The system helps modernize building exteriors or hide mechanical structures with a standing seam or flush appearance that allows for graphics and backlighting. It's a great tool for creating eye-catching light boxes that highlight an entryway or public space.

- Nano-Cell® technology uses cells measuring smaller than 0.18 inches to provide excellent durability
- Glazing is co-extruded with a specialized UV inhibitor for long-term performance
- Glazing panels feature a triple-tooth connection for superior loading capabilities
- Creates space for signage or applied graphics
- Backlighting opportunities allow for "light box" designs that can draw in customers or highlight building features
- Excellent for modernizing otherwise unsightly spaces
- Lightweight and easy to install

Product Specifications

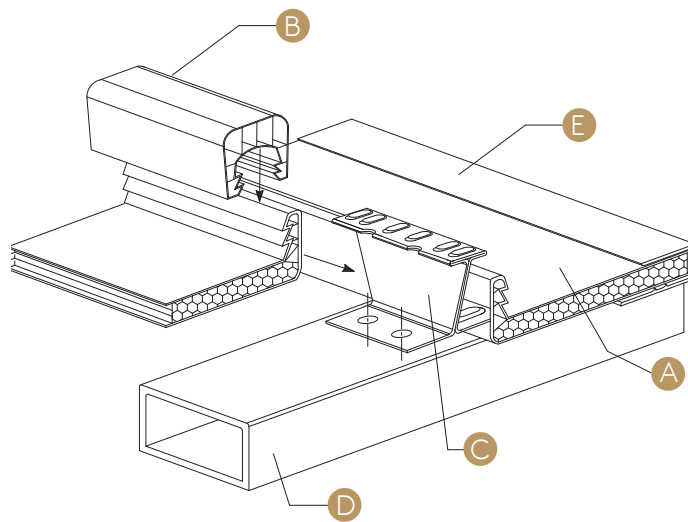
Panel Thicknesses	10mm, 12mm or 16mm
Panel Width	Nominal 23-3/4" (600mm) wide
Panel Weight	1.5 to 2lbs/ft²
Panel Assembly	Translucent polycarbonate panel with Nano-Cell® extrusion Mechanically interlocking triple-tooth standing seam connection
Frame Depth	2.68" (68mm) (system depth varies based on needed spans/loads - contact us for clarification)
System Height	Typical max of 25 ft - Contact us to check feasibility for taller applications
Glazing Finish	Standard: Matte Non-Standard: Non-Matte
Glazing Colors	Standard: Clear, Ice White, White Non-Standard: Blue, Green, Reflective Gray, Gray, Bronze
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
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

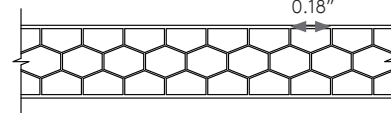
Performance Metric	Standard	Result
Reaction to Fire**	ASTM D 1929 ASTM D 2843 ASTM E 84 ASTM D 635	Complies with Ignition Temperature (1000F Actual > 650F Min Required) Complies with Smoke Development Index (67.7 Actual < 75 Max Required) Interior Flame Spread Index: 0 - Smoke Developed Index: 180 (Class A) Combustibility Class 1 (CC1) (Zero Burn Rate Actual < 1" Required)
Water Penetration	AAMA 501.2	Pass
Florida Product Approval (FPA)	TAS 202 + 203	Up to +/-120 PSF
	Listing Number	FPA#: FL47323 - HVHZ Approved
ICC Evaluation	N/A	ICC-ESR 4745
Environmental Product Declaration	ISO 14025 and ISO 21930	Available

**Note: All KLA Polycarbonate types have varying results - all meet or exceed these values



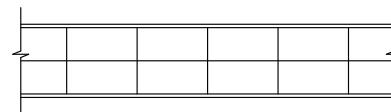
- A Polycarbonate glazing panel
- B Triple-tooth panel connector
- C Stainless steel panel clip
- D Aluminum purlin substructure
- E Aluminum framing system

Nano-Cell Extrusion



VS.

Wide-Cell Extrusion



PentaClad™ glazing features smaller cells, allowing for greater impact resistance and a more even diffusion of the sun's rays.

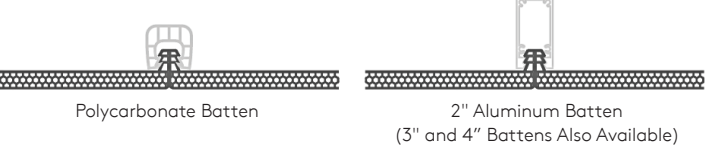


Protect walkways and exposed stairways.

Performance Data

Panel Thickness	Glazing Color	SHGC	VT
PentaClad™ 10mm	Clear Matte	0.59	0.61
	Ice White Matte	0.50	0.57
	White Matte	0.24	0.39
	Blue Matte	0.29	0.54
	Green Matte	0.28	0.53
	Bronze Matte	0.31	0.50

Batten Options



PentaClad™ Span Chart (Flush - Battens to Interior)*				
PSF	Poly Batten	2" Aluminum Batten	3" Aluminum Batten	4" Aluminum Batten
20	4'	7.3'	10.43'	15.98'
30	4'	6.37'	9.11'	13.96'
40	4'	5.79'	8.28'	12.69'
50	4'	5.38'	7.68'	11.78'
60	3'	5'	7.05'	11.08'
70	3'	4.63'	6.53'	10.33'
80	2.5'	4.33'	6.11'	9.67'
90	2.5'	4.08'	5.76'	9.11'

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



Modernize or disguise utilitarian structures like parking garages.



Create eye-catching light displays.



Color + Finish Options

Multiwall Polycarbonate Sheet Color Options:

Polycarbonate sheet colors are available in three standard colors (Clear Matte, Ice White Matte and White Matte) as well as five non-standard colors (Green, Blue, Gray, Bronze and Reflective Gray) and custom options. Please contact us for additional information.



Left to Right: Clear Matte, Ice White Matte, White Matte (standard colors), Green (non-standard) and Blue (non-standard).

*NOTE: Colors shown above are for illustrative purposes only. Actual color may vary.

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

Graphics + LED Lighting

PentaClad™ 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. By incorporating backlighting and graphics (supplied by third party vendors), you can draw interest and make a bright and colorful design statement. Contact us for more details.



Photo by R&B Das Photography



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