

Optimo™ Embossed Data Sheet

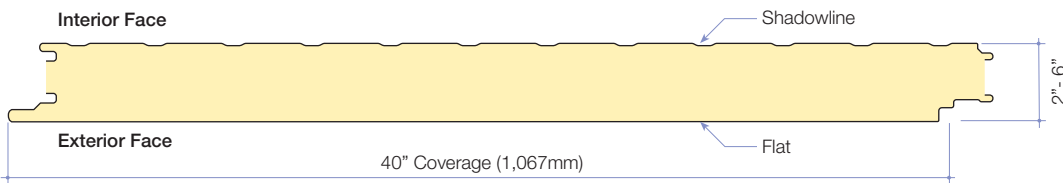
Insulated Wall Panel System



Kingspan's single component systems can increase speed of build by up to 50%

Product Specification

Thickness:	2", 2½", 3" and 4" standard (consult Kingspan for 5" & 6")
Widths:	24", 30", 36" and 40" standard
Lengths:	8'-0" to 24'-0" standard (consult Kingspan for longer lengths)
Panel Joint:	Double tongue and groove interlocking rainscreen joint
Exterior Face:	22 Ga. Embossed Galvalume® or G-90 galvanized pre-painted steel
Interior Face:	26/24/22 Ga. Embossed or Non-Embossed steel, AZ50 Galvalume® or G90 galvanized (20 Ga. available upon request)
Reveal:	⅛" or ⅜"
Core Material:	Polyisocyanurate (PIR)
R-Value:	7.2 per inch at 75°F / 8.0 per inch at 35°F
Manufacturing Process:	Foamed-In-Place continuous line production (FIP)
Orientation:	Vertical and Horizontal



Applications

The Optimo™ Embossed panel system delivers a flat appearance with a soft non-directional embossed stucco texture. Optimo™ Embossed panels, horizontally or vertically applied, use a patented double seal integrated joint. Standard reveals are ⅛" for vertical applications, and ⅜" for horizontal applications.

Optimo™ Embossed panels are suitable for new and retrofit applications across the cold storage, commercial and industrial market sectors.

Design Features

The foamed-in-place manufacturing process produces superior panels of consistent high quality that arrive to site ready for quick and easy installation, saving up to 50% in on-site construction time.

Panels are available with optional factory-caulked side joints to save erection labor (not available for cold storage applications).

Customer Options

Kingspan offers a full spectrum of vibrant colors for every color scheme. The high performance coatings provide long-life protection, color and gloss retention. Custom color matching is available to meet individual building designs and creative freedom.



Performance Testing and Approvals

Kingspan insulated panels meet specific building envelope performance criteria and requirements stipulated by US and Canadian building codes. Panels are tested in accordance with UL, ULC, FM and ASTM approval standards, testing methods and procedures. Kingspan insulated panels are listed by FM Global and Warnock Hersey.

Test	Procedure	Results
Fire	FM-4880	Passed: Class 1 Fire Rating of Insulated Wall or Wall and Roof / Ceiling Panels, Interior Finish Materials or Coatings, and Exterior Wall Systems
	ASTM E84	Flame spread <25, smoke developed <450
	CAN/ULC-S101	Fire endurance tests: 10 min and 15 min stayed in place
	CAN/ULC-S102	Flame spread: 5, Smoke developed: 135 for panel with facings
	CAN/ULC-S127	Flame spread <500 for foam core
	CAN/ULC S138	Passed: Fire growth of foamed plastic insulated building panels in a full scale room configuration
	CAN/ULC-S134	Passed: Standard method of test for fire of exterior wall assemblies
	NFPA 259	Tested for potential heat of building materials
	NFPA 268	Passed: Standard test method for determining ignitability of exterior wall assemblies using a radiant heat energy source
	NFPA 285	Passed: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components
Structural	FM-4881	Passed: Class +110/-154 Zone H Class +100/-140 Zone HM – LM
	ASTM E72	Vacuum chamber tested. Panel load / span and deflection tables are available
Thermal Performance	ASTM C518	R-value per inch = 7.5 h.ft².°F/Btu.in
Air Infiltration	ASTM E283	0.003 CFM/ft² of Panel Area at 6.24 psf
Water	ASTM E331	No uncontrolled water penetration at 20 psf differential pressure
	AAMA 501.1	Dynamic water pressure testing – no sign of water leakage at 15 psf
Fatigue Tests	Cyclic test to positive and negative wind loading to ± L/180 deflection	The panels exceeded 2 million alternate cycles without failure or damage
Bond Strength	ASTM D1623	Panels tested for tensile bond strength of metal to foam Sample placed in an autoclave device and pressurized to 2 PSI at 212°F for 2½ hours
Skin Delamination		No skin delamination with direct pull off pressure up to 1188 psf

The above tests were conducted on various Kingspan products, and not all products may comply with the tests shown. If you have any questions on a specific product and/or test, please ask a representative of Kingspan Technical Services. Kingspan does not assure compliance with any plans or specifications and it remains the responsibility of the customer to confirm compliance of the product with applicable local, state and national codes and other laws or regulations.

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

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