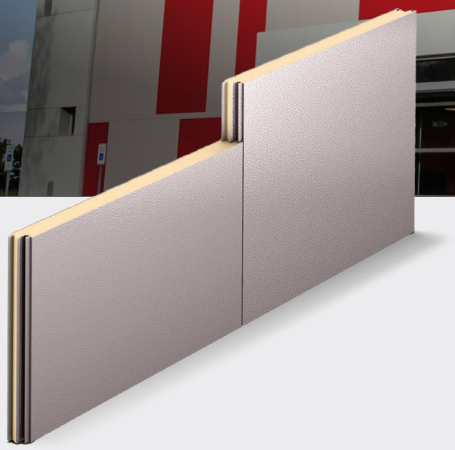
Design-Lok

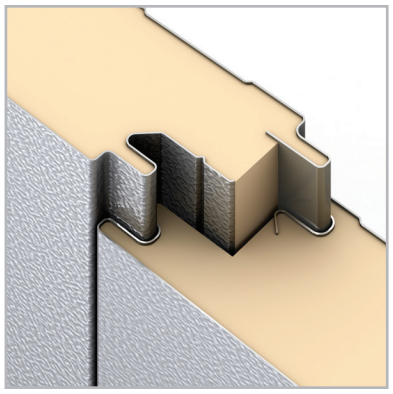
Insulated Metal Panel

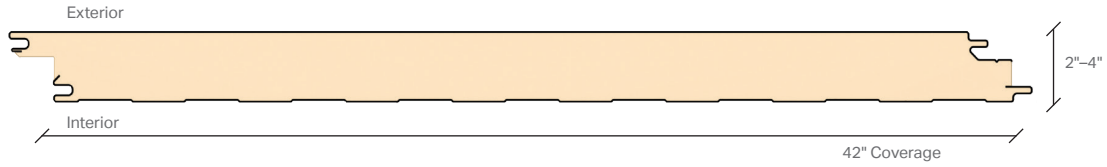
PAC-CLAD PETERSEN
A CARLISLE COMPANY



Design-Lok utilizes our Heavy Stucco Embossment (HSE). Design-Lok provides the look of tilt-up concrete while offering unsurpassed thermal efficiency. In comparison to tilt-up, the Design-Lok insulated metal panel is very lightweight and extremely cost-effective.

- **Panel Use:** Exterior Wall
- **Coverage Width:** 42-inch
- **Thickness:** 2, 2.5, 3, 4-inch
- **Length:** 8'-0" to 40'-0"
- **Exterior Gauge:** 26, 24
- **Interior Gauge:** 26
- **Exterior Substrate:** Galvalume®, G90
- **Interior Substrate:** Galvalume, Stainless Steel, G90
- **Exterior Finish:** Siliconized Polyester, low-gloss PVDF
- **Interior Finish:** Polyester, Siliconized Polyester, Plastisol (PVC)
- **Exterior Texture:** Heavy Embossed
- **Interior Texture:** Embossed, smooth
- **Joint:** Offset double tongue-and-groove
- **Core:** Continuously poured-in-place polyisocyanurate insulating foam
- **R-Value:** R-8 per inch of thickness (nominal)





TESTING: DESIGN-LOK INSULATED METAL PANEL

TYPE	TEST PROTOCOL	DESCRIPTION	RESULTS
Environmental Performance	ASTM C518	Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	K-Factor 0.139 BTU-in/hr-ft2-F° at 75° mean K-Factor 0.129 BTU-in/hr-ft2-F° at 35° mean
	ASTM E283	Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen	0.0011-cfm/sf at 20-psf
	ASTM E331	Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference	Zero penetration at 20-psf
Foam Core Characteristics	ASTM C273	Shear Properties of Sandwich Core Materials	Shear Strength = 16-psi
	ASTM D1621	Compressive Properties of Rigid Cellular Plastics	Compressive Strength — 18-psi
	ASTM D1622	Apparent Density of Rigid Cellular Plastics	Apparent Density — 2.25-pcf
	ASTM D1623	Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics	Tensile Strength — 21-psi
	ASTM D6226	Open Cell Content of Rigid Cellular Plastics	Open Cell Content ≥ 90% closed cells
Fire Resistance	ASTM E84	Surface Burning Characteristics of Building Materials	Flame Spread < 25, Smoke Developed < 450
	NFPA 285	Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components	Passed — see technical bulletin ATB-0007
	FM 4880	Factory Mutual Approval Standard for Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings and Exterior Wall Systems	Class 1 Fire Rated — see technical bulletin ATB-0005
Impact Resistance	FM 4881	Factory Mutual Approval Standard for Class 1 Exterior Wall Systems	
	TAS 201	Florida Building Code Impact Test Procedure	Miami Dade County NOA No. 20-1202.02
Engineering Properties	ASTM E1592	Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference	See Load Tables
	ASTM E72	Strength Tests of Panels for Building Construction	See Load Tables
	FM 4881	Factory Mutual Approval Standard for Class 1 Exterior Wall Systems	Class 1 Approved — see technical bulletins ETB-0008 and ETB-0013
Approvals	Miami-Dade County	Miami-Dade County Product Control Section — Notice of Acceptance	Miami Dade County NOA No. 20-1202.02
	State of Florida	Florida Product Approval	16327.1 R3
	TX Dept. of Insurance	Product Evaluation	Evaluation ID: EC-103
Bond Strength	Fatigue Endurance	2,000,000 Alternating Cycles of L/180 Deflection	No evidence of facer or liner delamination, fracture of foam core or permanent set
	Freeze/Heat Cycle	Twenty-One (21) Eight-hour Temperature Cycles (–20° F to 180° F)	No evidence of delamination, blistering or permanent set
	Humidity Endurance	1,200 Hours of 93% Humidity at a Temperature of 158° F	No evidence of delamination, blistering or interface corrosion
	Autoclave	Exposure to 218° F and a pressure of 2-psig for 2½ hours	No evidence of facer or liner delamination

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