

American Series Insulated Panels

A premium engineered exterior wall system for vertical applications.
Features a non-CFC polyurethane insulating core.



American Wholesale Refrigeration
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APPLICATIONS:

American Series panels are a multi-use, insulated cladding suitable for exterior wall envelopes in industrial applications including warehouses, manufacturing plants, service and utility buildings, as well as refrigerated or freezer buildings, food processing, pharmaceutical, and controlled environment areas.

American Series panels provide designers with a wide range of practical and aesthetically pleasing design flexibilities. The superior joint engineering assures a tight, well designed vapor barrier and building envelope.

CONSTRUCTION:

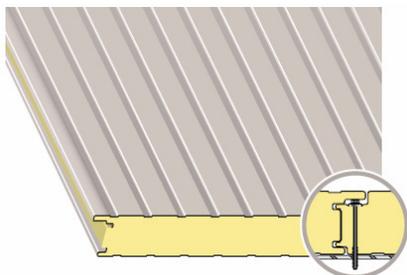
American Series panels are constructed with a non-CFC thermosetting polyurethane insulation that meets U.S. and Canadian building code requirements. Steel facings are precisely roll formed and foam insulation is expanded between metal sheets in a state-of-the-art continuous line production sequence that is fully computerized to ensure optimum quality and consistency in every panel.

INSULATION:

American Series panels with foamed polyurethane insulation are offered in thicknesses of 2", 2.5", 3", 4", 5", and 6" providing the highest R-value of any commonly available insulation product.

FACINGS:

American Series panels have a standard 26 gauge face of stucco embossed galvanized steel to ASTM A653 G-90 or galvalume designation. The base steel is a structural quality to minimum Grade "A" 33 ksi, conforming to ASTM A924.

**COATING SYSTEMS:**

Standard American Series panel finishes are Imperial White SMP – Silicone modified polyester CFIA and USDA approved with a nominal dry film thickness of 1.0 Mil including 0.2 Mil primer.

PANEL DESIGN:

American Series panels utilize a superior joint design providing hidden fastener anchorage affording connection of both metal skins to the building structure, and a caulked seal provision that provides excellent air infiltration and water penetration test results.

Panels are produced in the attractive stucco embossed profile on both the exterior and interior face.

Panel coverage is available in standard 42" width.

PERFORMANCE REQUIREMENTS:**FIRE:**

Meets special requirements of U.S. and Canadian model building codes and is listed and approved by the following authorities:

- ULI - Underwriters Laboratories Inc.
- FM - Factory Mutual
- WH - Warnock Hersey
- ULC - Underwriters Laboratories Canada
- NYC - MEA Report

FM-4880 - Class 1 Fire Rating of Insulated Wall or Wall and Roof/Ceiling Panels, Interior Finish Materials or Coatings, and Exterior Wall Systems

ASTN E84 - Flame Spread - 20; smoke developed 350 for foam core

CAN/ULC-S101 - Passed Fire Endurance Tests without fastening joint seams

CAN/ULC-S102 - Flame Spread - 20; smoke developed 350 for foam core

ULC/ORD-C376 - Fire growth of foamed plastic insulation building panels in a full scale room configuration.

CAN/ULC-S126 - Standard method of test for fire spread under roof deck assemblies.

CAN/ULC-S134 - Standard method of fire test of exterior wall assemblies.

UBC 26-4 - Passed multi-story test with standard panels.

THERMAL TRANSMISSION:

ASTM C518 - see specs

ASTM C236 - see specs

VAPOR BARRIER:

ASTM E283 - Air infiltration - see specs

ASTM E331 - Water penetration - see specs

STRUCTURAL:

FM-4881 - Approval Standard for Class 1 Exterior Wall Systems

ASTM E72 - Vacuum chamber test

FATIGUE TEST:

Panels were tested by independent laboratories for long term deflection failure. The panels exceeded 2 million alternate cycles without failure or damage.

BOND STRENGTH:

ASTM D1623 - Panel was tested for tensile bond strength of the metal to foam interface to 24 psi.

ALLOWABLE UNIFORM LOADS [PSF] FOR MULTIPLE SPAN CONDITION

LOADING TABLE	SKIN GA.	THICKNESS	SPAN [FEET]															
	DEFL.Δ	[INCH]	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	26/26 GA.	2"	71.1	56.1	45.2	37.1	30.9	25.9	22.0	18.7	16.2	14.0	12.1	10.4				
2-1/2"		83.3	66.2	53.9	44.7	37.6	31.9	27.3	23.5	20.5	17.8	15.6	13.7					
3"		101.6	81.5	67.0	56.2	47.7	40.8	35.2	30.6	26.9	23.6	20.8	18.6	16.9				
L/180	4"	121.9	98.8	82.2	69.6	59.8	51.9	45.4	40.0	35.5	31.6	28.2	25.2	22.5	19.8	17.9	15.9	
	5"	171.7	139.1	116.7	100.4	86.2	74.0	65.4	57.2	51.0	44.6	40.5	36.2	32.6	30.0	26.7	24.5	
	6"	199.7	163.8	135.6	116.3	99.7	87.9	77.8	67.9	59.8	54.0	48.2	44.1	39.2	36.1	32.7	29.5	

Allowable loads shown above are for a positive wind loads with deflection limit to l/180. Consult factory for maximum allowable negative wind loads and panel fastening pattern. Thermal loads have not been considered.



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