

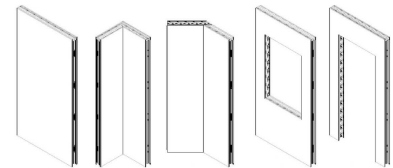
Technical Data Sheet

General Description: Structural and insulated panel comprised of a closed cell polyurethane filled foam core surrounded on at least two sides by a siding material of various composition having sufficient strength and suitability for a given application, typically as structural wall or roof panels and also used as curtain-wall or infill on larger structures. Edge mounted steel cam-locks embedded in foam core and profiled edges ensure inter-panel securement. Individual panels typically not wider than 4ft or longer than 16ft.



Method of Connection: 5/16" hex wrench inserted through a hole in the panel skin rotates a male cam-lock engaging member to join with a female cam-lock in adjoining panel. Typically cam-locks are located every two vertical feet along the panel edge, starting one foot from the top and bottom of the panel edge. In standard mode each cam-lock secures with approximately 750 pounds of force. Speed of wall panel assembly typically runs from 1-2 minutes per wall lineal foot.

Adaptability for Purpose: Panel siding material, thickness and performance can vary based on application. Possible siding materials include wood (OSB, plywood), fibercement, steel, fiberglass, resin composite, etc. Standard thicknesses include 3" (~R20), 4.5" (R26), 6.5" (R40) and 8.5" (R60).



Foam Characteristics

Compressive Strength	ASTM D-1624-00	35 psi
Compressive Modulus	ASTM D-1624-00	790 psi
Density	ASTM D-1622-98	2.4-2.5 pcf
Dimensional Stability	ASTM D-2126-99	Excellent
Flammability – Smoke Generation	ASTM E-84-01	<400
Flammability – Flame Spread	ASTM E-84-01	<25
Foam Core Fire Rating	*** Integrity	Class 1
Linear Coefficient of Thermal Expansion	ASTM D696-98	-40°F to +240°F
Closed Cell Content by Air Pycnometer	ASTM D-2856-87	>96%
Shear Strength	ASTM C-273-61 (1988)	26 psi
Shear Modulus	ASTM C-273-61 (1988)	325 psi
Resistance to Solvent	ASTM D-543-95 (2001)	Excellent
Resistance to Mold/Mildew	ASTM D-543-95 (2001)	Excellent
Thermal Conductivity	ASTM C-518-91	K Factor 0.14 (BTU-in/ft ² hr°F)
Thermal Conductivity (aged @ temp)	ASTM C-518-91	R value 7 per inch @ 55°F
Tensile Strength	ASTM D-1623-78 (1995)	16 psi
Tensile Modulus	ASTM D-1623-78 (1995)	325 psi
Water Absorption	ASTM D-2842-01	2.4%
Vapor Permeability	ASTM D-2842-01	2 perm/in

*** Polyurethane foam is a "thermo-set" plastic. Melting does NOT occur.

Sample Panel Characteristics**

Compression	ASTM E-72-98 sec. 9	50,624 lbs
Transverse	ASTM E-72-98 sec. 11	6,734 lbs
Racking	ASTM E-72-98 sec. 14	4,897 lbs

** 7/16" OSB both sides. Panel dimensions 4.5"x48"x96". Flat panel, no framing reinforcement.

