

Structural Panel

Description

Structural Panels (SIP) are an energy efficient alternative to conventional framing. They are load bearing insulated panels used as walls, roofs, bump outs, and dormers in both residential and commercial buildings. Structural panels provide the exterior sheathing, insulation, and interior sheathing in one unit.

Components

Foard Panels are manufactured with third party rated material and stringent quality control guidelines.

Core Material: The insulating core material can either be Extruded or Expanded Polystyrene. Both are superior insulating materials with unique advantages for various situations.

Interior and Exterior Skins: The skins are 7/16" thick, PS1-95, PS2-92, Exposure 1 Oriented Strand Board (OSB). Only OSB meets the dimensional stability, lamination quality, and size availability requirements.

Features

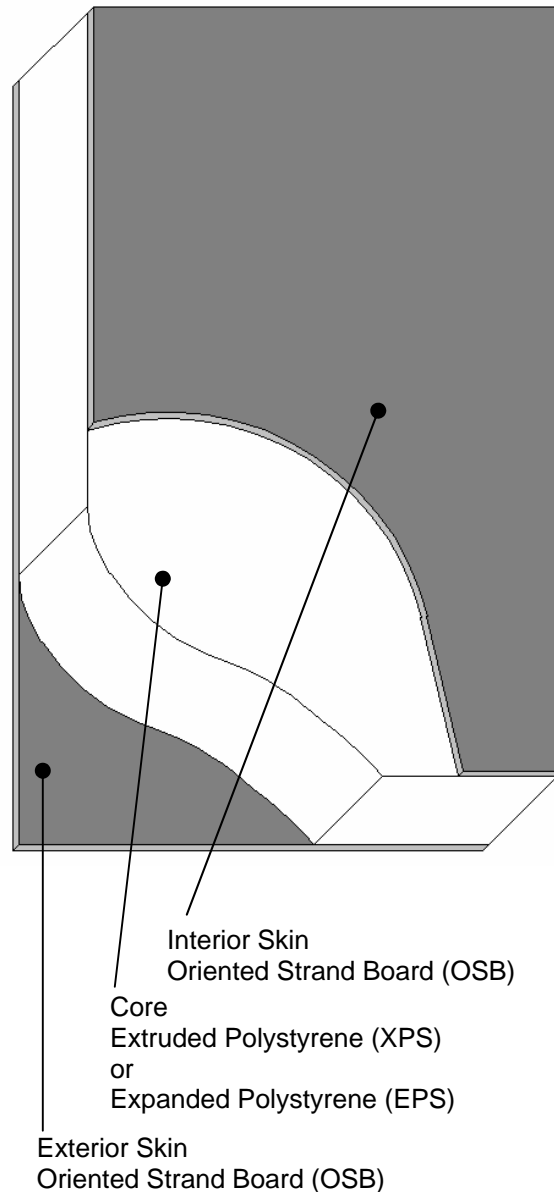
- Reduces Heating and Cooling Costs
- Superior Strength
- Fast & Efficient Installation
- Reduced Labor Costs

Availability

- 4ft wide, lengths up to 24ft
- Custom Pre-Cut Options
- Milled Electrical Chases Available

Quality Control

Independent third party quality control and plant inspection programs are administered by RADCO.



20 Year Limited Warranty

Foard Panel Inc. warrants to the buyer that Foard Panels will not delaminate in normal use as the result of a defect in materials or manufacturing for 20 years from the date of purchase. See full warranty for details.



Structural Panel

Dimensions & Weights				
Overall Thickness (in)	4.5	6.5	8.25	10.25*
Core Thickness (in)	3.63	5.63	7.38**	9.38*
Weight EPS / XPS (lb/ft ²)	3.9 / 4.1	4.1 / 4.3	4.2 / 4.5	4.4*
Width (ft)	4			
Available Lengths (ft)	6, 7, 8, 9, 10, 12, 14, 16, 18, 20, 22, 24			

Structural and Load Data
See Structural and Load Data Sheet

* Available in EPS only, ** XPS is 7.25

Core Properties	Units	ASTM #	EPS	XPS
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General

Density	lb/ft ³	D1622	1.0	1.5
Thermal Resistance (per inch of core thickness at 75 deg F)	$R - \text{Value/in} = \frac{\text{hr} \cdot ^\circ\text{F} \cdot \text{ft}^2}{\text{BTU} \cdot \text{in}}$	C518	3.85	5.0
Thermal Resistance (per inch of core thickness at 40 deg F)	$R - \text{Value/in} = \frac{\text{hr} \cdot ^\circ\text{F} \cdot \text{ft}^2}{\text{BTU} \cdot \text{in}}$	C518	4.2	5.4
Thermal Conductivity (per inch of core thickness at 75 deg F)	$k = \frac{\text{BTU} \cdot \text{in}}{\text{hr} \cdot ^\circ\text{F} \cdot \text{ft}^2}$	C518	0.26	.20
Thermal Conductivity (per inch of core thickness at 40 deg F)	$k = \frac{\text{BTU} \cdot \text{in}}{\text{hr} \cdot ^\circ\text{F} \cdot \text{ft}^2}$	C518	0.24	.19
Dimensional Stability	% Change	D2125 Proc. C & E	2.0 max	2.0 max

Strength Properties

Compressive 10% Deformation	lb/in ²	D1621	10-14	20
Shear	lb/in ²	D273	18-22	25

Moisture Resistance

Water Vapor Transfer	Perm. in	E96 Proc. A	1.2-3.0	<1.5
Absorption (vol.)	%	C272	<4.0	<0.5
Capillarity			none	none

Maximum Service Temperature

Long Term	°F		167	165
Intermittent	°F		180	165

Fire Characteristics

Rating			Class I	Class I
Smoke Developed		E84	125	165
Flame Spread		E84	15	5
Toxicity of Combustion Products		Same as wood or cardboard		