

Tongue & Groove Clad Structural Panel

Description

Wood Clad Structural Panels (TGC) are an energy efficient alternative to conventional framing and provide great flexibility of interior finishes. They are insulated panels used as walls, roofs, bump outs, and dormers in both residential and commercial buildings. Tongue & groove clad structural panels provide the exterior sheathing, insulation, and interior finish 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.

Interior Finish: The most common interior finish choice is NELMA Standard grade eastern white pine milled with a v-groove pattern. This can be customized to almost any species of wood milled into almost any profile. There are limits to the face widths and length availability, so speak to your Foard Panel representative for details.

Features

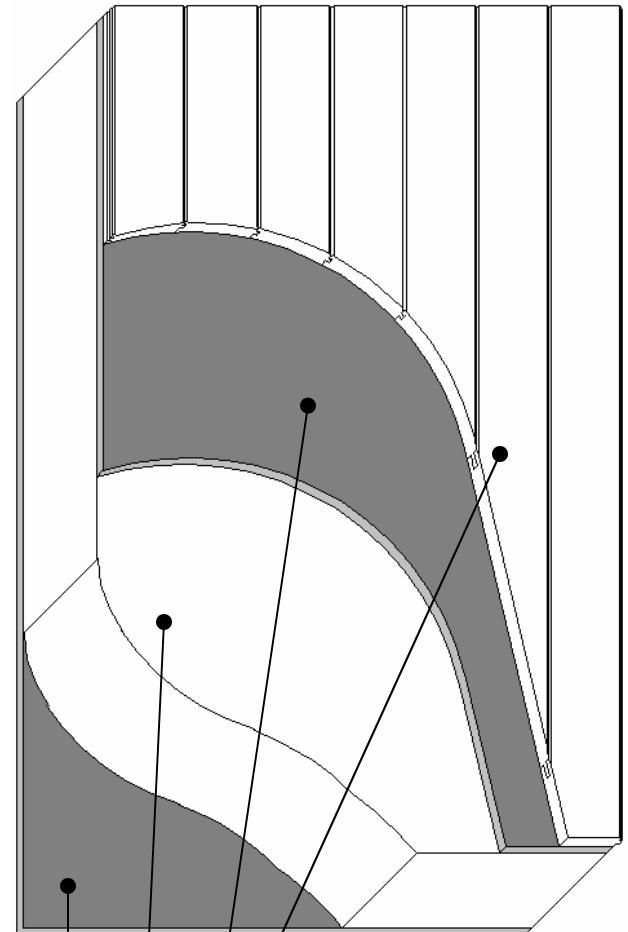
- Reduces Heating and Cooling Costs
- Superior Strength
- Fast & Efficient Installation
- Reduced Labor Costs

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.



- Interior Finish
Tongue & Groove Wood (T&G)
- Interior Skin
Oriented Strand Board (OSB)
- Core
Extruded Polystyrene (XPS)
or
Expanded Polystyrene (EPS)
- Exterior Skin
Oriented Strand Board (OSB)

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.

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Dimensions & Weights (Assumes Pine T&G)

Overall Thickness (in)	5.25	7.25	9.0	11*
Core Thickness (in)	3.63	5.63	7.38**	9.38*
Weight EPS / XPS (lb/ft ²)	5.6 / 5.8	5.8 / 6.0	5.9 / 6.2	6.1*
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, ***Lengths longer than 12' may contain joints in the T&G depending on material availability.

Core Properties

Units

ASTM

EPS

XPS

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		