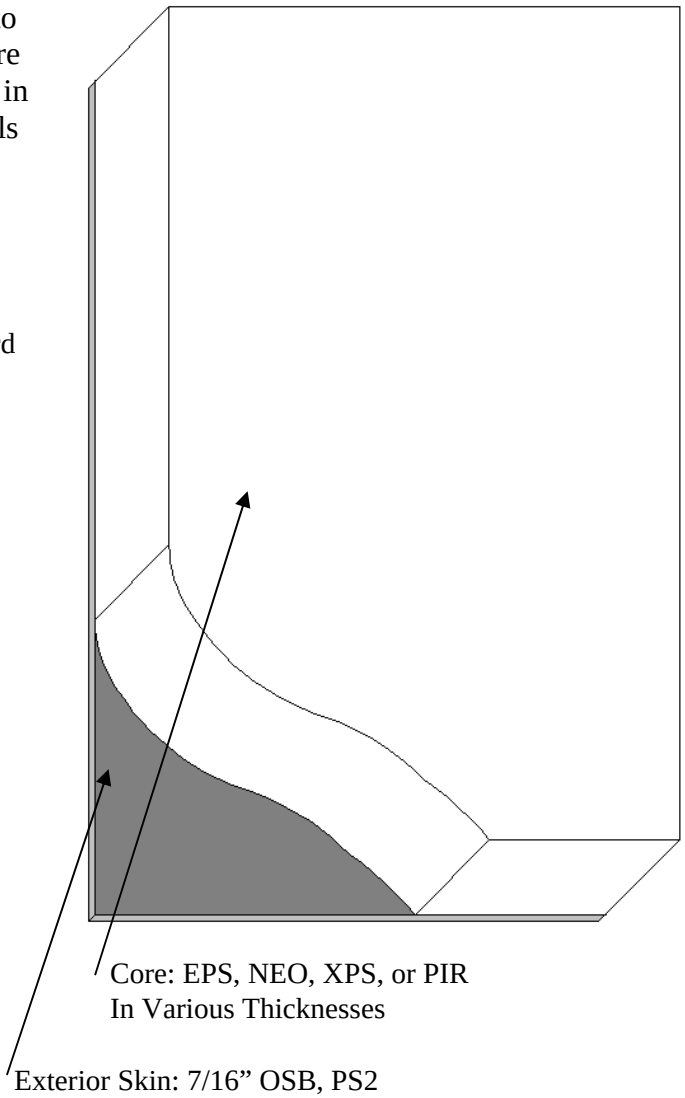
NAIL BASE PANELS

Foard PANEL
STRUCTURAL INSULATED PANELS

Nail Base Panels (NB) are a high performance alternative to "wrap and strap" insulation and sheathing systems. They are non-load bearing insulated panels used on walls, and roofs in both residential and commercial buildings. Nail base panels provide the exterior sheathing and insulation in one unit.



Components & Features:

Exterior Skin:
7/16" thick, HUD-PS2-grade, Exposure 1, Oriented Strand Board

Core Material:
EPS: Expanded Polystyrene, 1.0 lb/cuft, 1 in. is R-3.8
XPS: Extruded Polystyrene, 1.6 lb/cuft, 1 in. is R-5.0
NEO: Neopor Polystyrene, 1.15 lb/cuft, 1 in. is R-4.7
PIR: Polyisocyanurate foam, 2.0 lb/cuft, 1 in. is R-5.7

Features:
- Reduces Heating and Cooling Costs
- Fast Installation Reduces Labor Costs
- Uses Renewable Wood
- Recycled / Recyclable Foam Insulation

Availability:

- 3.0 through 25.0 inches thick
- 4ft by 6, 7, 8, 9, 10, 12, 14, & 16ft
- Optional pre-cut services
- Optional embedded nailers
- Optional FSC Certified Skins
- Optional custom skins

Manufacturing & Quality Control:

Foard Panel manufacturing meets ICC-ES AC-10. Independent review and approval of procedures and plant operations by registered, third party, ISO Guide 65/17065:2012 accredited inspection agency.

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.

www.foardpanel.com • 1-800-644-8885
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SIP Properties at Standard Thicknesses							
Overall Thickness (in)		2.50	4.00	6.00	7.25	9.75	11.75
Core Thickness (in)		2.00	3.63	5.63	7.38	9.38	11.38
EPS	R-Value @75°	8	14	22	29	37	44
	R-Value @40°	8.9	16	24	32	40	48
	Permeance (perm)	1.11	0.82	0.62	0.51	0.42	0.36
	Weight (lb/sqft)	1.6	1.7	1.9	2.0	2.2	2.3
	Size Availability 4ft Widths	4, 5, 6, 7, 8, 9, 10, 12, 14, and 16ft					
XPS	R-Value	11	19	29	37	47	57
	Permeance (perm)	0.67	0.43	0.30	0.24	0.19	0.16
	Weight (lb/sqft)	1.7	1.8	2.1	2.3	2.6	2.9
	Size Availability 4ft Widths	4, 5, 6, 7, 8, 9, 10, 12, 14, and 16ft					
NEO	R-Value @75°	10	18	27	35	45	54
	R-Value @40°	11	19	29	37	47	57
	Permeance (perm)	0.87	0.60	0.43	0.35	0.28	0.24
	Weight (lb/sqft)	1.7	1.9	2.2	2.5	2.8	3.1
	Size Availability 4ft Widths	4, 5, 6, 7, 8, 9, 10, 12, 14, and 16ft					
PIR	R-Value	12	22	34	44	55	67
	Permeance (perm)	0.40	0.24	0.16	0.13	0.10	0.08
	Weight (lb/sqft)	1.7	2.0	2.3	2.6	3.0	3.3
	Size Availability 4ft Widths	4, 5, 6, 7, 8, 9, 10, 12, 14, and 16ft					

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SIP Core Properties						
		Test Method	EPS	NEO	XPS	PIR
General	Density (lb/cuft)	ASTM D1622 or C303	1.0[5]	1.15[4]	1.6	2.0
	Dimensional Stability (% Change)	ASTM D2126	2[3]	<1.5[2]	2	2
	Max. Custom SIP Thickness (in.)	-	25.00	25.00	12.25	12.25
Thermal	R-Value of 1 inch thickness (75 °F)	ASTM C518	3.8[3]	4.7[4]	5.0	5.7
	R-Value of 1 inch thickness (40 °F)	ASTM C518 or C578	4.2[3]	5.0[4]	5.4	-
	U-Value of 1 inch thickness (75 °F)	ASTM C518	0.26[3]	0.21	0.20	0.17
	U-Value of 1 inch thickness (40 °F)	ASTM C518 or C578	0.24[3]	0.20	0.19	-
Strength	Compressive 10% Deformation (lbs/sqin)	ASTM D1621 or C165	10	14	20	20
	Permeability (perm inches)	ASTM E96	5.0[3]	3.1[4]	1.5	<1.0
	Absorption (% volume)	ASTM C272	4.0[3]	1.1[4]	0.3	<1.0
	Max. Service Temperature (°F)	ASTM D3278	160	165[5]	190[6]	250
Fire Characteristics	Rating	-	Class I	Class I	Class I	Class I
	Smoke Developed	E84	125	25[2]	165	220[7]
	Flame Spread	E84	15	5[2]	5	50[7]
	Toxicity of Combustion Products	Same as wood or Cardboard				

[1] Hunter Panel. Accessed, 5/26/2013. http://www.hpanels.com/images/stories/pdfs/tech_bulls/Hunter_Recycled_Content.pdf
[2] Opcore G Thermal Insulation, NEO 5300plus from opcodirect.com/library accessed 8/24/2017
[3] ASTM International Standards (2006). ICC. pp659-662. West Conshohocken, PA
[4] BASF Technical Properties, January 18 2016
[5] BASF Safety Data Sheet: Styropor BF-222. Revised June 2007, Version 2.1.
[6] Dow Material Safety Data Sheet: Styrofoam 4x48 Inch Panel Core 20 WN Extruded Polystyrene Foam Insulation. Issued January 2012.
[7] Hunter Panel Technical Department, October 31, 2014.

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