The better way to build™

Thermapan
Structural
Insulated
Panels

Product Catalog

Exterior Wall SIP

NEW HOME RESIDENTIAL | COMMERCIAL | ADDITIONS | COTTAGE | GARAGE | TIMBER FRAME LOG HOME | PARTY WALL

Overview

The Exterior Wall SIP is the most common panel manufactured by Thermapan with numerous applications in residential and commercial construction alike.

Product Facts & Details

- Exterior Wall SIPs are highly structural, distributing loads across an even surface and bearing three times the load of conventional 2x framed walls.
- Thermapan SIPs replace several components of conventional framing, including studs, insulation, vapour barrier and air barrier.
- A 20 foot wall section can be installed in just 30 minutes by a trained crew.
- Exterior Wall SIPs are suitable for partition wall assemblies. The assembly is UL&ULc listed and has a STC 50 sound transmission rating. SIP party walls are faster and easier to install than concrete block or stick frame party walls. Ideal for townhouse, apartment, hotel/motel and other multi-unit projects.

Party Wall Assembly

1. Thermapan 6.5" SIP
2. Resilient Channel
3. Sonosecur Panel
4. 5/8" Gypsum Type C (two layers each side)

Panel Specifications

Exterior Side	7/16" OSB
Interior Side	7/16" OSB
Length	8', 9', 10', 12', 14', 16'
Width	4'
Thickness	4.5", 6.5", 8.25"
R-Value	R19, R29, R38
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes





Roof & Ceiling SIP

NEW HOME RESIDENTIAL | COMMERCIAL | ADDITIONS | COTTAGE | GARAGE | TIMBER FRAME LOG HOME

Overview

Non-vented roof and ceiling insulation is critical to energy efficient building design. Thermapan Roof SIPs are an increasingly popular option for home, cottage and commercial construction.

Product Facts & Details

- **Flat Ceilings:** Ideal for flat, big box store or green roofs; faster installation and reduced labor savings.
- **Vaulted Ceilings:** SIPs make vaulted roofs easy to frame and insulate, while providing superior load strength. Panels can be covered with shingles or any other standard roof sheathing.

Panel Specifications

Exterior Side	7/16" OSB
Interior Side	7/16" OSB
Length	8', 9', 10', 12', 14', 16'
Width	4'
Thickness	6.5", 8.25", 10.25", 12.25"
R-Value	R29, R38, R48, R58
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes

Roof Span Chart (L/360)

Panel Thickness	SIP Splines				Lumber Splines			
	Spline Dimension	30 psf	40 psf	50psf	Lumber Dimension	30 psf	40 psf	50psf
6.5"	3"x5.5"	13'-0"	12'-0"	10'-6"	2x6	16'-0"	14'-6"	13'-0"
8.25"	3"x7.25"	14'-0"	13'-0"	11'-0"	2x8	16'-0"	16'-0"	15'-0"
10.25"	3"x9.25"	16'-0"	14'-0"	12'-0"	2x10	16'-0"	16'-0"	16'-0"
12.25"	3"x11.25"	16'-0"	15'-0"	13'-0"	2x12	16'-0"	16'-0"	16'-0"

Uniform live load and 10 psf dead load as shown. 16 ft. length is maximum manufactured.




Floor SIP

NEW HOME RESIDENTIAL | ADDITIONS | COTTAGE

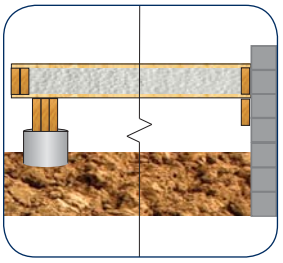
Overview

Commonly used for easy floor construction in additions, sunrooms and pier foundations, as well as for living spaces above garages. Floor SIPs are non-vented and therefore provide true insulation, giving you a comfortable floor to walk on.

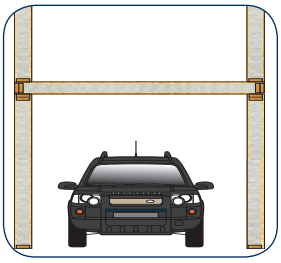
Product Facts & Details

- Floor SIPs are very easy to install. Typical conventional floors for sunrooms and additions that take 2-3 days to build can be assembled in a matter of hours.

- Because of a panel's continuous bond between the OSB and EPS, SIP floors keep your living space warm in the winter and cool in the summer.



Floor for residential addition



Living space above garage

Panel Specifications

Exterior Side	7/16" OSB
Interior Side	7/16" OSB
Length	8', 9', 10', 12', 14', 16'
Width	4'
Thickness	6.5", 8.25", 10.25", 12.25"
R-Value	R29, R38, R48, R58
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes

Floor Span Chart (Standard Term)

Panel Thickness	Lumber Spline	Maximum Span
6.5"	2x6	12'-0"
8.25"	2x8	13'-9"
10.25"	2x10	15'-4"
12.25"	2x12	16'-0"

Note: Vibration controlled floor span table. Please contact Thermapan's Engineering Department for more details.

Nailbase Panel

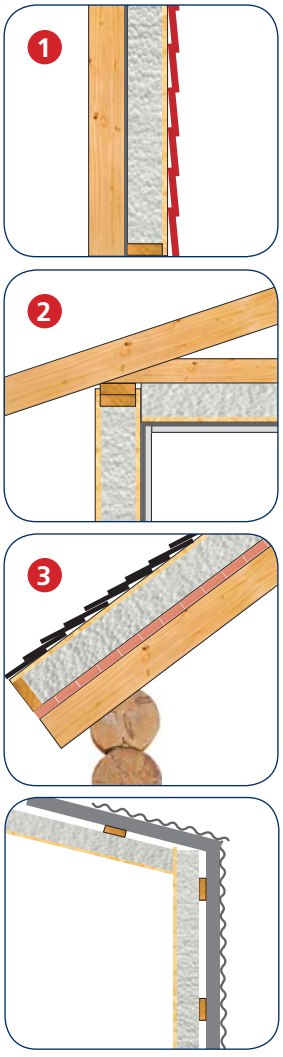
COMMERCIAL | INSULATION UPGRADE | TIMBER FRAME LOG HOME | INDUSTRIAL

Overview

Nailbase SIPs are suitable for applications involving **a)** insulation improvements, or **b)** when a structural wall or roof panel is not required

Product Facts & Details

- **Exterior Walls:** Nailbase panels are suitable for adding insulation to an exterior wall, by removing its existing siding and installing the panel directly to the structure. New siding is then affixed to the nailbase. 1
- **Added Roof Insulation:** For those flat or vaulted roofs requiring extra insulation. Simply remove the roof shingles or other, and install the nailbase panel to the structure. New shingles are then affixed to the nailbase OSB.
- **Flat Ceilings:** Can be installed on the underside of a roof truss to make an insulated ceiling. 2
- **Vaulted Ceilings:** Timberframe and log homes typically have structural ceilings with maximum 4' o/c purlins and 1.5" (minimum) pine or cedar finish. 3



Industrial/Commercial: Wall and ceiling on steel-frame building

Panel Specifications

Exterior Side	7/16" OSB (opt: SmartPanel™)
Interior Side	None
Length	12', 14', 16'
Width	4'
Thickness	4", 6", 7.75", 9.75", 11.75"
R-Value	R18, R28, R37, R47, R57
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes

PWF Foundation SIP

NEW HOME RESIDENTIAL

CRAWL SPACE

Overview

PWF Foundation SIPs are specifically engineered for below grade uses. The pressure-treated exterior sheathing resists wood decay, backed by a limited lifetime warranty.

Product Facts & Details

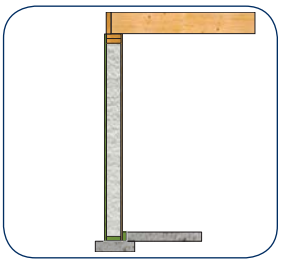
- PWF SIP foundations have numerous advantages over traditional concrete foundations:
  - Dry basements with no mustiness
  - No framing required to insulate and finish basement
  - No cracking
  - Fast construction – no concrete to cure
- Structurally Strong: An 8.25" thick PWF SIP can support 30,000 lbs of loading.
- With an R-value of R-38 to R-48, PWF Foundation SIPs far exceed traditional concrete basement construction and exceeds Insulated Concrete Form (ICF) basements.

Note: Refer to the Thermapan Installation & Reference Manual for recommended installation. For additional installation details, refer to local building code and the following building standards:

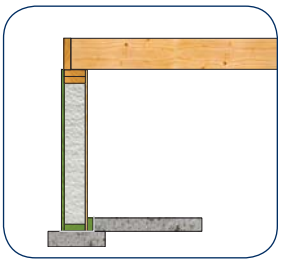
- **Canada:** CAN/CSA S406-M92: *Construction of Preserved Wood Foundations*
- **USA:** ANSI / American Forest & Paper Association (AF&PA): *PWF 2007: Permanent Wood Foundation Design Specification*

Panel Specifications

Exterior Side	1/2" PWF Plywood (minimum)
Interior Side	7/16" OSB
Length	8', 9', 10'
Width	4'
Thickness	8.25", 10.25"
R-Value	R38, R48
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes



Full-sized basement



Crawl-space basement

Frost Wall SIP

NEW HOME RESIDENTIAL | INDUSTRIAL | COMMERCIAL | COTTAGE | GARAGE

Overview

Frost wall SIPs are the ideal solution for slab on grade applications. They are installed in one step as compared to pouring concrete or laying blocks and applying insulation separately.

Product Facts & Details

- Ideal solution for a solid, unexcavated foundation (e.g. garage area, cottage with no basement) beneath the level of frost penetration in order to prevent building shift due to frost action.

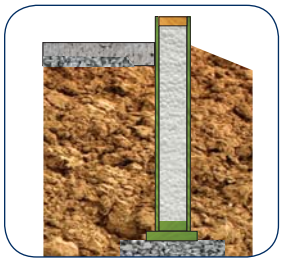
- Extremely fast installation compared to traditional concrete pour or laying block.

Note: Refer to the Thermapan Installation & Reference Manual for recommended installation. For additional installation details, refer to local building code and the following building standards:

- **Canada:** CAN/CSA S406-M92: *Construction of Preserved Wood Foundations*
- **USA:** ANSI / American Forest & Paper Association (AF&PA): *PWF 2007: Permanent Wood Foundation Design Specification*

Panel Specifications

Exterior Side	1/2" PWF Plywood (min.)
Interior Side	1/2" PWF Plywood (min.)
Length	8', 9', 10'
Width	4'
Thickness	6.5", 8.25", 10.25"
R-Value	R29, R38, R48
Vapor Resistance	2.6 ng/Pam^{2}s - Type 1
Air Resistance	Yes



Slab on grade application

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