



## LISTING INFORMATION OF SIPA - Structural Insulated Panels (SIPs)

SPEC ID: 29792

Structural Insulated Panel Association (SIPA)  
6659 Kimball Dr. D 404

Gig Harbor , WA 98335

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Structural Insulated Panels are factory-assembled, engineered-wood-faced, structural insulated panels (SIPs) with an expanded polystyrene (EPS) foam core. The panels are intended for use as load-bearing or non-load bearing wall and roof panels. The panels are custom made to the specifications for each use and are assembled under factory-controlled conditions. The maximum panel size is 8 ft. wide and up to 20 ft. in length.

## MANUFACTURING LOCATIONS

<b>ACME Panel Company</b> Joe Fortier 1905 W. Main Street Radford, VA 24141 Tel: 877-331-4266 <a href="mailto:joe@acmepanel.com">joe@acmepanel.com</a>	<b>Enercept, Inc.</b> Charlie Ewalt 3100 9th Avenue SE Watertown, SD 57201 Tel: 605-882-2222 <a href="mailto:cewalt@enercept.com">cewalt@enercept.com</a>	<b>Energy Panel Structures, Inc.</b> Chris Spaeth 102 East Industrial Park Graettinger, IA 51342 Tel: 712-859-3219 <a href="mailto:cspaeth@epsbuildings.com">cspaeth@epsbuildings.com</a>
<b>Extreme Panel Technologies, Inc.</b> Terry Dieken P.O. Box 435 Cottonwood, MN 56229 Tel: 800-977-2635 <a href="mailto:terry@extremepanel.com">terry@extremepanel.com</a>	<b>Foard Panel, Inc.</b> Paul Malko P.O. Box 185 West Chesterfield, NH 03466 Tel: 603-256-8800 <a href="mailto:paul@foardpanel.com">paul@foardpanel.com</a>	<b>Plasti-Fab Ltd.</b> Jim Whalen #1, 600 Chester Road, Annacis Business Park Delta, BC V3M 5Y3 403-569-4312 <a href="mailto:jwhalen@pfbcorp.com">jwhalen@pfbcorp.com</a>
<b>FischerSIPS, LLC</b> Damian Pataluna 1800 Northwestern Parkway Louisville, KY 40203 Tel: 800-792-7477, ext. 285 <a href="mailto:dpataluna@fischersips.com">dpataluna@fischersips.com</a>	<b>PorterSIPs, div. of Porter Corp</b> Ard Smits 4240 N. 136th Avenue Holland, MI 49424 Tel: 616-836-0718 <a href="mailto:ardsmi@portercorp.com">ardsmi@portercorp.com</a>	<b>Timberline Panel Company, LLC</b> Thomas R. Harrison 12 Spring Street Schuylerville, NY 12871 Tel: 866-460-4114 <a href="mailto:tomharrison@timberlinepanels.com">tomharrison@timberlinepanels.com</a>
<b>Murus Company, Inc.</b> Jamie Jenkins P.O. Box 220 Mansfield, PA 16933 Tel: 800-626-8787 <a href="mailto:j_jenkins@urus.com">j_jenkins@urus.com</a>		

## RATINGS

ASTM E119 / CAN/ULC S101	Fire-Resistance Rating	Design Number
5-1/2 in. core SIP Wall Assembly	1-hour rating	SIP/CWP 60-02
7-1/2 in. core SIP Wall Assembly	1-hour rating	SIP/CWP 60-01
SIP Wood Floor/Ceiling Assembly	1-hour rating	SIP/CRP 60-01
SIP Steel Floor/Ceiling Assembly	1-hour rating	SIP/CRP 60-02

<u>Attribute</u>	<u>Value</u>
CSI Code	06 12 00 Structural Panels
Fire Resistance	1 Hour Fire Rating
Listed or Inspected	LISTED
Report Number	n/a
Criteria	CAN / ULC S101 (2007)
Criteria	ASTM E119 (2012)
Intertek Services	Certification
Listing Section	BUILDING PANELS

## DRAWING INDEX

SIP/CRP 60-01

SIP/CRP 60-02

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# SIP/CRP 60-01

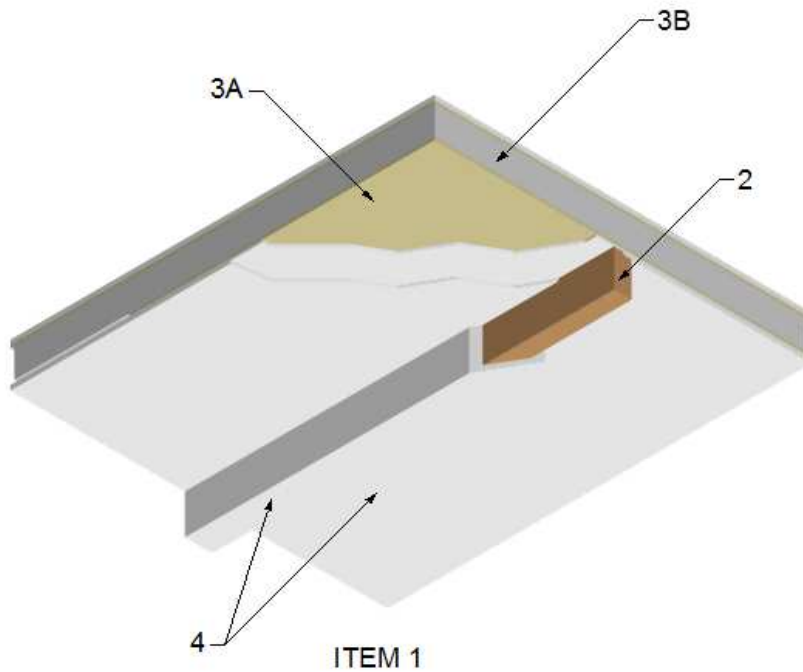
Division 7 - Thermal and Moisture Protection  
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**Design Number: SIP / CRP 60-01**  
**EXTERIOR WALL SYSTEMS**  
**Structural Insulated Panels Association (SIPA)**  
**SIPA Structural Insulated Panels**  
**ASTM E 119 – 2012 Edition**  
**CAN/ULC S 101 – 2007 Edition**  
**Rating – 1 Hour**  
**Superimposed Load: 40 PSF**

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1. **CEILING ASSEMBLY:** Construct a ceiling assembly using elements described in Items 2 through 5.
2. **WOOD BEAMS/JOIST:** Use minimum 4-1/2 in. wide x 9-1/2 in. deep engineered wood beam/joist spaced in accordance with manufacturer's design specifications and building code requirements.
3. **CERTIFIED COMPANIES:** Structural Insulated Panel Association (SIPA)

**CERTIFIED PRODUCT:** SIPA Structural Insulated Panels

**ROOF PANELS:** Install SIPA Structural Insulated Panels consisting of the following elements:

- A. **FACING:** Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core (Item 3A) conforming to DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16.

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B. CORE: Use ASTM C578 compliant and Listed Type I (min. 0.9 pcf), 9-1/4 in. thick EPS foam core. Nominal 1-1/2 in. deep section of EPS foam core removed from all four sides.

C. ADHESIVE (Not Shown): Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the lamination procedure in accordance with the in-plant quality system documentation.

D. SPLINE (Not Shown): Structural Insulated Panels are interconnected with surface splines or block splines. Connections using dimensional lumber splines or engineered structural splines are not specifically addressed in this Listing and must be designed in accordance with accepted engineering practice to meet applicable code requirements.

Surface splines typically consist of 3 in. wide by 7/16 in. thick OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.

Block splines are manufactured in the same manner as the SIP except with an overall thickness that is 1 in. less than the overall thickness of the panel to be joined.

4. GYPSUM BOARD: Apply two (2) layers of 5/8 in. thick, Type X gypsum board to the interior side of the ceiling assembly (Item 1) oriented with the long dimension oriented perpendicular to the wood beams (Item 2). Secure the base layer using 1-1/4 in. long, bugle head self-drilling screws spaced nominally 8 in. on center (oc) around the perimeter and 12 in. oc in the field. Secure the second layer using 2 in. long bugle head self-drilling screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field. Stagger joints of base layer and second layer.

A. JOINT TAPE AND COMPOUND – (Not Shown) Apply a level 2 finish of

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vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed minimum 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).

5. ROOF COVERING (Not Shown): Use a Class A, B, or C hot mopped or cold applied roof covering, or use a ballasted, adhered or mechanically attached single ply roofing membrane.

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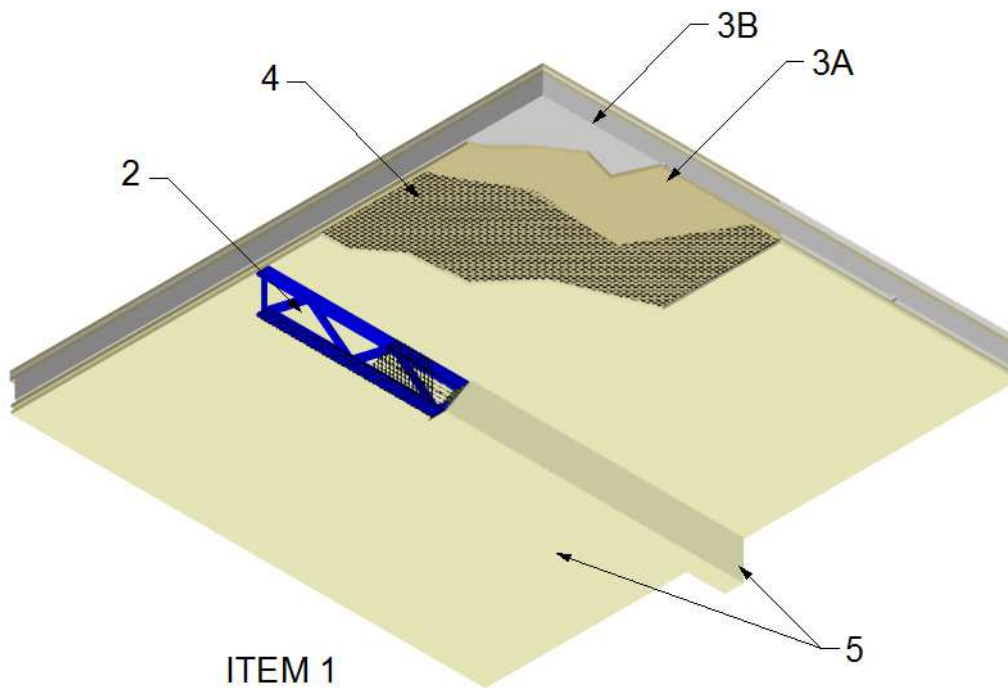
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**Structural Insulated Panels Association (SIPA)**  
**SIPA Structural Insulated Panels**  
**ASTM E 119 – 2012 Edition**  
**CAN/ULC S 101 – 2007 Edition**  
**Rating – 1 Hour**  
**Superimposed Load: 42.13 PSF**

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1. CEILING ASSEMBLY: Construct ceiling assembly using the elements described in Items 2 through 6.

2. STEEL JOIST: Use minimum Type 10K1 open-web steel joist constructed and spaced in accordance with  
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manufacturer's design specifications and building code requirements.

3. CERTIFIED COMPANIES: Structural Insulated Panel Association (SIPA)



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**CERTIFIED PRODUCT:** SIPA Structural Insulated Panels

**ROOF PANELS:** Install SIPA Structural Insulated Panels consisting of the following elements:

- A. **FACING:** Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core (Item 3A) conforming to DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16.
  - B. **CORE:** Use ASTM C578 compliant and Listed Type I (min. 0.9 pcf), 9-1/4 in. thick EPS foam core. Nominal 1-15/16 in. x 11/16 in. tapering to 13/16 in. notches are molded into the interior and exterior sides of the EPS foam core at the wall panel edges. A nominal 1 in. x 1 in. notch is also molded at the center of the foam core.
  - C. **ADHESIVE (Not Shown):** Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the lamination procedure in accordance with the in-plant quality system documentation.
  - D. **SPLINE (Not Shown):** Structural Insulated Panels are interconnected with surface splines or block splines. Connections using dimensional lumber splines or engineered structural splines are not specifically addressed in this Listing and must be designed in accordance with accepted engineering practice to meet applicable code requirements.  
  
Surface splines typically consist of 3 in. wide by 7/16 in. thick OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.  
  
Block splines are manufactured in the same manner as the SIP except with an overall thickness that is 1 in. less than the overall thickness of the panel to be joined.
4. **METAL LATH:** Install 3/8 in. expanded galvanized steel mesh weighing 3.4 lb/yd. to cover the exposed side of the steel joist (Item 2). Secure the lath using No. 20 SWG steel tie wire at the mid-point of alternate web members. Install the lath on the bottom of the roof panels (Item 3) using 1-1/2 in. deep x 15/16 in. wide C-pint staples spaced 7 in. on center (oc).
  5. **SPRAY APPLIED FIBER:** Apply to the wetted surfaces of steel joist and panels, a minimum 11 pcf dry density Listed spray applied fiber to the metal lath (Item 6). Apply at a minimum thickness of 2 1/4 in. to all mesh surfaces.
  6. **ROOF COVERING (Not Shown):** Use a Class A, B, or C hot mopped or cold applied roof covering, or use a ballasted, adhered or mechanically attached single ply roofing membrane.

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# SIP/CWP 60-01

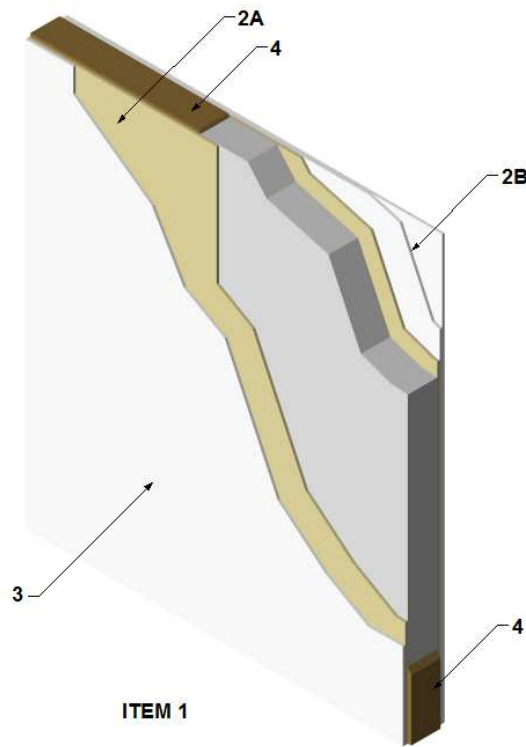
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**EXTERIOR WALL SYSTEMS**  
**Structural Insulated Panels Association (SIPA)**  
**SIPA Structural Insulated Panels**  
**ASTM E 119 – 2012 Edition**  
**CAN/ULC S 101 – 2007 Edition**  
**Rating – 1 Hour**  
**Restricted Superimposed Load: 1,800 PLF**

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1. WALL ASSEMBLY: Construct a wall assembly using elements described in Items 2 through 4.

2. CERTIFIED COMPANIES: Structural Insulated Panel Association (SIPA)

CERTIFIED PRODUCT: SIPA Structural Insulated Panels

WALL PANELS: Install SIPA Structural Insulated Panels consisting of the following elements:

A. FACING: Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core (Item 2B) conforming to DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16.

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- B. CORE: Use ASTM C578 compliant and Listed Type I (min. 0.9 pcf), 7-1/2 in. thick EPS foam core that has a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450. Nominal 1-15/16 in. x 11/16 in. tapering to 13/16 in. notches are molded into the interior and exterior sides of the EPS foam core at the wall panel edges. A nominal 1 in. x 1 in. notch is also molded at the center of the foam core.
- C. ADHESIVE (Not Shown): Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the lamination procedure in accordance with the in-plant quality system documentation.
- D. SPLINE (Not Shown): Structural Insulated Panels are interconnected with surface splines or block splines. Connections using dimensional lumber splines or engineered structural splines are not specifically addressed in this Listing and must be designed in accordance with accepted engineering practice to meet applicable code requirements.
- Surface splines typically consist of 3 in. wide by 7/16 in. thick OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.
- Block splines are manufactured in the same manner as the SIP except with an overall thickness that is 1 in. less than the overall thickness of the panel to be joined.
3. GYPSUM BOARD: Apply two (2) layers of 5/8 in. thick, Type X gypsum board to the interior and exterior side of the wall assembly (Item 1) oriented vertically with the joints staggered 16 in. on center (oc). Secure the base layer using 1-5/8 in. long, bugle head self-drilling screws spaced nominally 12 in. oc around the perimeter and 24 in. oc in the field. Secure the second layer using 2 in. long
- bugle head self-drilling screws spaced nominally 12 in. oc around the perimeter and 24 in. oc in the field.
- A. JOINT TAPE AND COMPOUND – (Not Shown) Apply a level 2 finish of vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed minimum 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).
4. BEARING PLATES: Install nominal 2 in. x 8 in. No. 2 lumber plates to the top and bottom of the wall panels (Item 2) in the pre-cut channel in the foam core and secure to the skins (Item 2A) using 12d common nails spaced nominal 12 in. oc. Prior to installing, apply a layer of acrylic latex caulk across the mating face with the EPS foam core (Item 2B).

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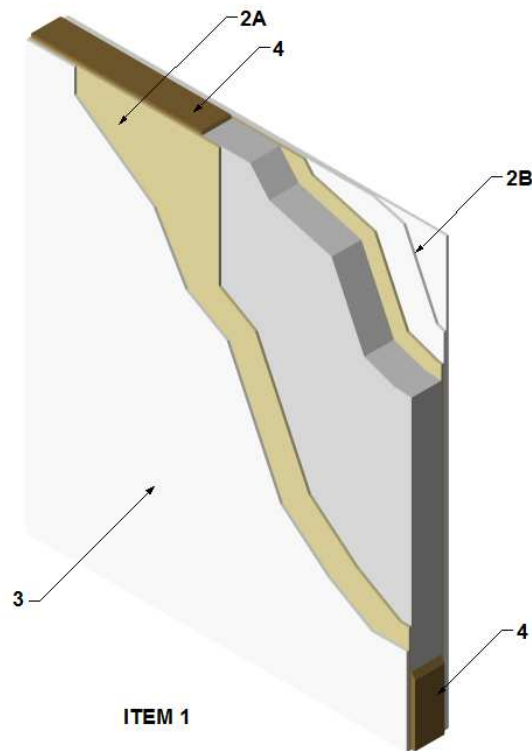
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**Rating – 1 Hour**  
**Restricted Superimposed Load: 1,800 PLF**

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1. WALL ASSEMBLY: Construct a wall assembly using elements described in Items 2 through 4.
2. CERTIFIED COMPANIES: Structural Insulated Panel Association (SIPA)  
  
CERTIFIED PRODUCT: SIPA Structural Insulated Panels

WALL PANELS: Install SIPA Structural Insulated Panels consisting of the following elements:

- A. FACING: Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core (Item 2B) conforming to DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16.

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- B. CORE: Use ASTM C578 compliant and Listed Type I (min. 0.9 pcf), 5-1/2 in. thick EPS foam core that has a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450. Nominal 3/4 in. notches are molded into the vertical edges of the panel and nominal 1-1/2 in. notches are molded into the sides of the EPS foam core at the wall panel edges.
- C. ADHESIVE (Not Shown): Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the lamination procedure in accordance with the in-plant quality system documentation.
- D. SPLINE (Not Shown): Structural Insulated Panels are interconnected with surface splines or block splines. Connections using dimensional lumber splines or engineered structural splines are not specifically addressed in this Listing and must be designed in accordance with accepted engineering practice to meet applicable code requirements.
- Surface splines typically consist of 3 in. wide by 7/16 in. thick OSB. At each panel joint, one surface spline is inserted into each of two tight-fitting slots in the core. The slots in the core are located just inside the facing.
- Block splines are manufactured in the same manner as the SIP except with an overall thickness that is 1 in. less than the overall thickness of the panel to be joined.
3. GYPSUM BOARD: Apply one (1) layer of 5/8 in. thick, Listed Type C gypsum board to the interior and exterior side of the wall assembly (Item 1) oriented vertically. Secure the gypsum board using 1-5/8 in. long, bugle head self-drilling screws spaced nominally 8 in. on center (oc) around the perimeter and 12 in. oc in the field.
- A. JOINT TAPE AND COMPOUND – (Not Shown) Apply a level 2 finish of vinyl or casein, dry or premixed joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed minimum 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).
4. STUDS AND BEARING PLATES: Install nominal 2 in. x 6 in. No. 2 lumber plates to the top and bottom of the wall panels (Item 2) in the pre-cut channel in the foam core and secure to the skins (Item 2A) using 12d common nails spaced nominal 12 in. oc. Prior to installing, apply a layer of acrylic latex caulk across the mating face with the EPS foam core (Item 2B).

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