LISTING INFORMATION OF

SIPA - Structural Insulated Panels (SIPs)
SPEC ID: 32805

Structural Insulated Panel Association (SIPA)
P.O. Box 39848
Fort Lauderdale, FL 33339
United States

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LISTING INFORMATION

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.

MANUFACTURING LOCATIONS

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Contact</th>
</tr>
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<tbody>
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<td>ACME Panel Company</td>
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RATINGS

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<tr>
<td>6-1/2 in. SIP Wall Assembly</td>
<td>1-hour rating</td>
<td>SIP/CWP 60-02</td>
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<td>4-1/2, 6-1/2 or 8-1/4 in. SIP Wall Assembly</td>
<td>1-hour rating</td>
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<td>SIP Wood Roof/Ceiling Assembly</td>
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<tr>
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<th>CSI Code</th>
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<td>Intertek Services</td>
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<td>Listed or Inspected</td>
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<td>Listing Section</td>
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DRAWING INDEX

SIP/CRP 60-01
SIP/CRP 60-02
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SIP/CWP 60-02
1. CEILING ASSEMBLY: Construct a ceiling assembly using elements described in Items 2 through 5 with a maximum restricted superimposed load of 40% of the allowable capacity of the panel.

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 3B) conforming and identified as meeting DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16 and/or CAN/CSA O325.0, Exterior Grade Sheathing with a span index of 1R24/2F16.

   B. CORE: Use ASTM C578 compliant and Listed Type I EPS (min. 0.9 pcf) with a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450 per ASTM E84 and/or CAN/ULC S701 compliant and Listed Type 1 EPS with a flame spread rating not exceeding 500 per CAN/ULC S102.2.

   C. ADHESIVE (Not Shown): Facing materials are adhered to the core material using a structural adhesive. The adhesive is applied during the
D. SPLINE (Not Shown): Structural Insulated Panels are interconnected with surface splines or block splines. 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 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.
SIP/CRP 60-02

1. **CEILING ASSEMBLY:** Construct ceiling assembly using the elements described in Items 2 through 6 with a maximum restricted superimposed load of 57% of the allowable capacity of the panel.

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

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

4. **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 and identified as meeting DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16 and/or CAN/CSA
O325.0, Exterior Grade Sheathing with a span index of 1R24/2F16.

B. CORE: Use ASTM C578 compliant and Listed Type I EPS (min. 0.9 pcf) with a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450 per ASTM E84 and/or CAN/ULC S701 compliant and Listed Type 1 EPS with a flame spread rating not exceeding 500 per CAN/ULC S102.2.

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: Structural Insulated Panels are interconnected with surface splines or block splines. 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 lbyd. 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 (CAFCO BLAZE-SHIELD Type DC-F) to the metal lath (Item 6). Apply at a minimum thickness of 2-1/4 in. to all mesh surfaces. Please reference the CAFCO BLAZE-SHIELD Type DC-F Code Evaluation Report for more details.

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.
SIP/CWP 60-01

1. WALL ASSEMBLY: Construct a wall assembly using elements described in Items 2 through 4 up to a maximum of 9 feet in height with a maximum restricted superimposed load of 82% of the allowable capacity of the panel.

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
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).

B. CORE: Use ASTM C578 compliant and Listed Type I EPS (min. 0.9 pcf) with a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450 per ASTM E84 and/or CAN/ULC S701 compliant and Listed Type 1 EPS with a flame spread rating not exceeding 500 per CAN/ULC S102.2.

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. 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.

Prior to installing, apply a layer of acrylic latex caulk across the mating face with the EPS foam core (Item 2B).
**SIP/CWP 60-02**

**Division 7 - Thermal and Moisture Protection**

**07 42 00 Wall Panels**

**07 42 43 Composite Wall Panels  Page 1 of 2**

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**Design Number: SIP / CWP 60-02**

**EXTERIOR WALL SYSTEMS**

Structural Insulated Panel Association (SIPA)

SIPA 6½ in. Structural Insulated Panels

ASTM E 119 – 2012 Edition

CAN/ULC S 101 – 2007 Edition

Rating – 1 Hour

Restricted Superimposed Load: See Item 1

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1. **WALL ASSEMBLY**: Construct a wall assembly using elements described in Items 2 through 4 up to a maximum of 10 feet in height with a maximum restricted superimposed load of 60% of the allowable capacity of the panel.

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

   A. **FACING**: Nominal 7/16 in. thick OSB skins factory bonded to interior and exterior sides of EPS foam core

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Date Created: August 7, 2013

Revised: March 23, 2015
(Item 2B) conforming and identified as meeting DOC PS 2-04, Exposure 1, Rated Sheathing with a span index of 24/16 and/or CAN/CSA O325.0, Exterior Grade Sheathing with a span index of 1R24/2F16.

B. CORE: Use ASTM C578 compliant and Listed Type I EPS (min. 0.9 pcf) with a flame spread rating not exceeding 75 and smoke-developed rating not exceeding 450 per ASTM E84 and/or CAN/ULC S701 compliant and Listed Type 1 EPS with a flame spread rating not exceeding 500 per CAN/ULC S102.2.

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 nominal 2 x 6 No. 2 lumber splines. At each panel joint, one 2 x 6 spline is installed in the precut channels in the foam core of the panel and secured to the skins (Item 2A) using 1 5/8 in. long ring shank steel nails spaced at a nominal 12 in. oc.

4. BEARING PLATES: Panels are attached to nominal 2 x 6 No. 2 lumber top and bottom plates recessed into the precut channel in the foam core. Skins (Item 2A) are attached to the panels using 8d common nails spaced nominal 6 in. oc. Prior to installing, apply a layer of acrylic latex caulk across the mating face with the EPS foam core (Item 2B).