



ICC-ES Listing Report ESL-1385

Reissued August 2024

This listing is subject to renewal August 2025.

CSI: DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 12 00—Structural Panels

Product Certification System:

The ICC-ES product-certification system includes evaluating reports of tests of standard manufactured product, prepared by accredited testing laboratories and provided by the listee, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the listee's quality system.

Product: STRUCTURAL INSULATED PANELS (SIPS) MANUFACTURED WITH FACINGS COATED WITH IFTI DC360 INTUMESCENT COATING

Listee: ENERGY PANEL STRUCTURES, INC.

Evaluation: Energy Panel Structure's Structural Insulated Panels (SIP's) manufactured with facings coated with IFTI DC360 intumescent coating were evaluated based on a tested non-load bearing wall assembly consisting of building-material components described in the Design Listings, tested in accordance with the following standards:

- ASTM E119-18B, Standard Test Methods for Fire Tests of Building Construction and Materials.
- UL 263-11 (with revisions through March 2018), Standard for Fire Tests of Building Construction and Materials, Underwriters Laboratories, Inc.

Findings: Energy Panel Structure's Structural Insulated Panels (SIP's) manufactured with facings coated with IFTI DC360 intumescent coating as components of the assembly is based on testing in accordance with the applicable test method as referenced in each ICC Design No., and as referenced in the applicable sections of the following code editions:

- 2021 *International Building Code*® (IBC)
Applicable Section: 703.2
- 2021 *International Residential Code*® (IRC)
Applicable Section: R302

Identification:

1. Each panel must be identified by a stamp or label on the panel that includes the name of the report holder (Energy Panel Structures, Inc.), identification of the manufacturing facility, production date or lot number, and/or the ICC-ES listing report number ([ESL-1385](#)) and when applicable, the ICC-ES listing mark.
2. The report holder's contact information is the following:

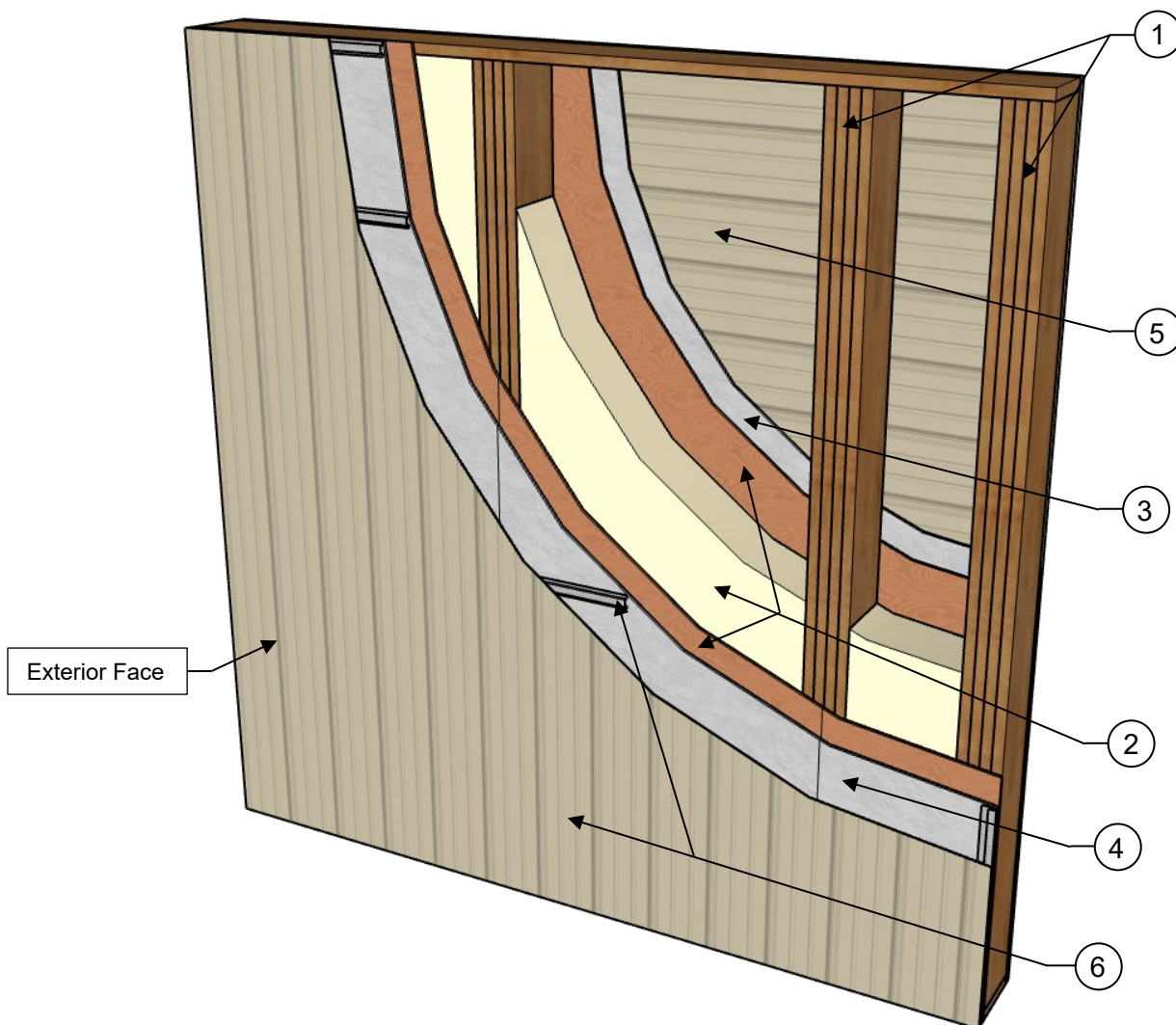
ENERGY PANEL STRUCTURES, INC.
102 EAST INDUSTRIAL PARK
GRAETTINGER, IOWA 51342
(712) 260-5626
www.epsbuildings.com

Installation: Energy Panel Structure's Structural Insulated Panels (SIP's) manufactured with facings coated with IFTI DC360 intumescent coating must be installed in accordance with Energy Panel Structure's published installation instructions and applicable codes.

Conditions of Listing:

1. The listing report addresses only conformance with the standards and code sections noted above.
2. Approval of the product's use is the sole responsibility of the local code official.
3. The listing applies only to the materials tested and as submitted for review by ICC-ES.
4. For an assembly tested in accordance with ASTM E119, the Assembly Rating shall apply to both sides of the assembly (fire from either face of the wall), unless noted otherwise.
5. Energy Panel Structure's Structural Insulated Panels (SIP's) manufactured with facings coated with IFTI DC360 intumescent coating described in this listing report are manufactured under a quality control program with inspections by ICC-ES.

Applicant: ENERGY PANEL STRUCTURES, INC.
Product: STRUCTURAL INSULATED PANELS (SIPS) MANUFACTURED WITH FACINGS COATED WITH IFTI DC360 INTUMESCENT COATING
Standard: ASTM E119 (UL 263)
Assembly Rating: 1-Hour from the Exterior Face Only
Load: Non-Load Bearing
WPC = Wood, Plastics and Composites



Listings are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the listing or a recommendation for its use. There is no warranty by ICC Evaluation Service, LLC, express or implied, as to any finding or other matter in this listing, or as to any product covered by the listing.

COMPONENTS OF CONSTRUCTION:

1. **Framing (Splines and Bearing Plates)** – 4-ply glulam columns consisting of nominal 2-inch by 10-inch (50.8 mm by 254 mm) wood studs, spaced maximum 48 inches (1219.2 mm) on center, shall be secured to top and bottom bearing plates with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails. The top bearing plate shall consist of a nominal 2-inch by 10-inch (50.8 mm by 254 mm) SYP MSR 2400f-2.0E. The bottom bearing plate shall consist of a Sillbor® Borate Pressure-Treated nominal 2-inch by 10-inch (50.8 mm by 254 mm) SYP #2.
2. **Structural Insulated Panel (SIP)** – Composite panels of a nominal 9³/₈-inch (238.1 mm) thick expanded polystyrene (EPS) foam core, conforming to ASTM C578 Type I, faced on both surfaces with minimum 2³/₃₂-inch (18.3 mm) thick, 6-ply, fire-retardant-treated plywood conforming to DOC PS 1, Exterior Grade Sheathing. Panels must be secured to each framing column and top/bottom bearing plates with 2³/₈-inch (60.3 mm) long x 0.113-inch (2.87 mm) diameter nails, spaced maximum 6-inches (152.4 mm) on center along the perimeter of the panel. Nails along the panel seam shall be staggered 3-inches (76.2 mm) from fasteners on the opposite side of the panel.

Prior to securing the panels to the columns and bearing plates, a bead of sealant must be applied to the inside corners of the EPS foam core in accordance with the SIP manufacturer's installation instructions. Additionally, all seams on the exterior (exposed) face shall be sealed using Fire Barrier Sealant, and all horizontal seams on the interior (unexposed) face shall be sealed using Fire Barrier Sealant, in accordance with the SIP manufacturer's installation instructions.

Note: See Conditions of Listing Item 4 of [ESL-1385](#).
3. **Interior Face Intumescent Coating** – International Fireproof Technology's (IFTI) DC360 intumescent coating shall be applied to the outward side of the plywood facing at a minimum 50 mils (1.27 mm) dry film thickness (DFT) on the interior face of the assembly.
4. **Exterior Face Intumescent Coating** – International Fireproof Technology's (IFTI) DC360 intumescent coating shall be applied to the outward side of the plywood facing at a minimum 60 mils (1.52 mm) dry film thickness (DFT) on the exterior face of the assembly.
5. **Interior Face Cladding** – Minimum 29-gauge (14.1 mils) thick and 36 inches (914.4 mm) wide G-100 steel rib panels must be installed horizontally direct to the SIP panel. Fastening of the interior cladding to the SIP shall be in accordance with the manufacturer's installation instructions.
6. **Exterior Face Cladding and Framing** – Framing for the exterior cladding shall consist of minimum 25-gauge (21.9 mils) thick, 1/2-inch (12.7 mm) deep galvanized resilient channels installed horizontally and spaced at a maximum of 48-inches (1219.2 mm) on center. Minimum 29-gauge (14.1 mils) thick and 36 inches (914.4 mm) wide G-100 steel rib panels must be installed vertically to the resilient channel. Fastening of the resilient channel-to-SIP and exterior cladding-to-resilient channel shall be in accordance with the manufacturer's installation instructions.

Applicant: ENERGY PANEL STRUCTURES, INC.

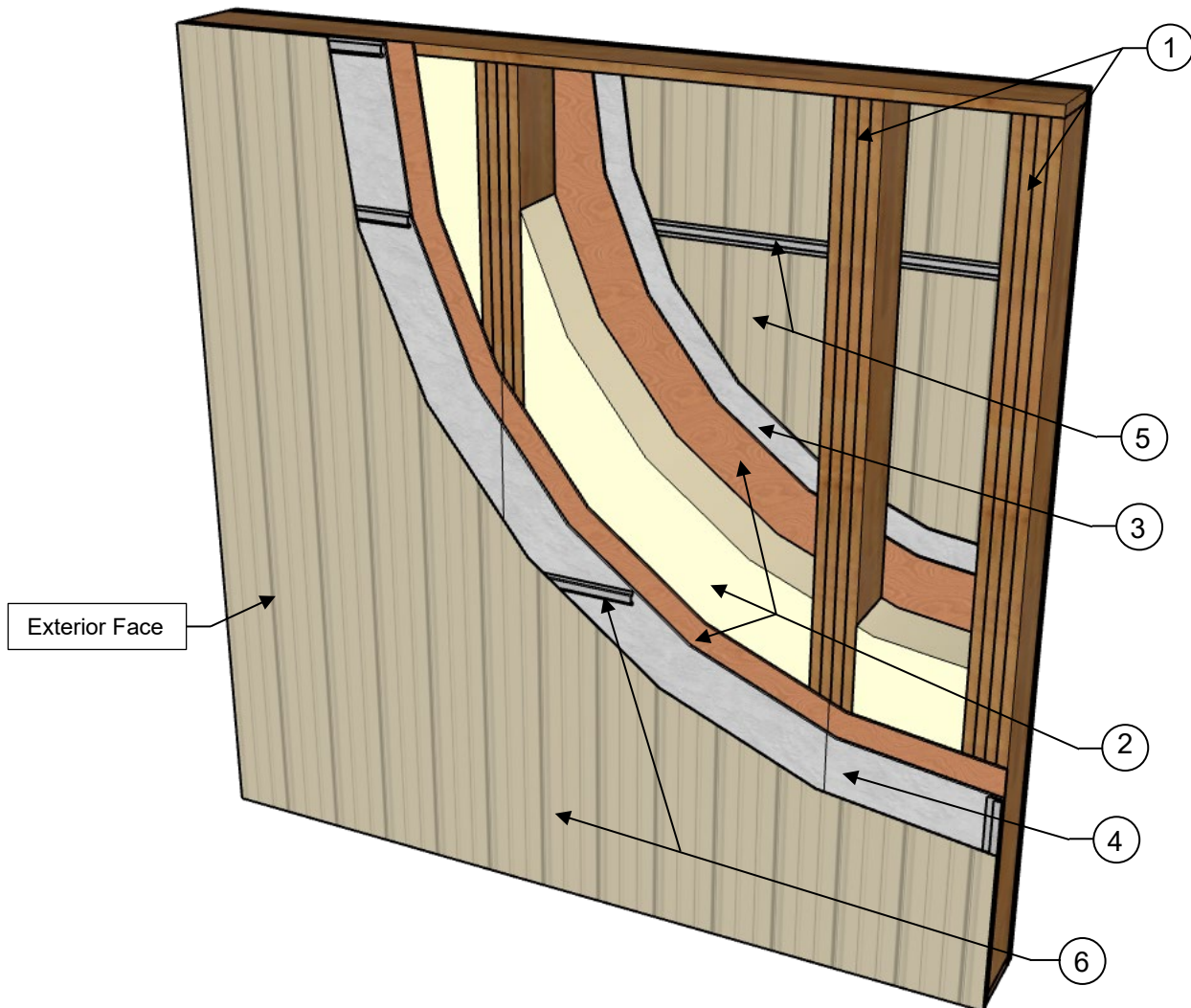
Product: STRUCTURAL INSULATED PANELS (SIPS) MANUFACTURED WITH FACINGS COATED WITH IFTI DC360 INTUMESCENT COATING

Standard: ASTM E119 (UL 263)

Assembly Rating: 1-Hour

Load: Non-Load Bearing

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Framing (Splines and Bearing Plates)** – 4-ply glulam columns consisting of nominal 2-inch by 10-inch (50.8 mm by 254 mm) wood studs, spaced maximum 48 inches (1219.2 mm) on center, shall be secured to top and bottom bearing plates with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails. The top bearing plate shall consist of a nominal 2-inch by 10-inch (50.8 mm by 254 mm) SYP MSR 2400f-2.0E. The bottom bearing plate shall consist of a Sillbor® Borate Pressure-Treated nominal 2-inch by 10-inch (50.8 mm by 254 mm) SYP #2.
2. **Structural Insulated Panel (SIP)** – Composite panels of a nominal 9³/₈-inch (238.1 mm) thick expanded polystyrene (EPS) foam core, conforming to ASTM C578 Type I, faced on both surfaces with minimum 2³/₃₂-inch (18.3 mm) thick, 6-ply, fire-retardant-treated plywood conforming to DOC PS 1, Exterior Grade Sheathing. Panels must be secured to each framing column and top/bottom bearing plates with 2³/₈-inch (60.3 mm) long x 0.113-inch (2.87 mm) diameter nails, spaced maximum 6-inches (152.4 mm) on center along the perimeter of the panel. Nails along the panel seam shall be staggered 3-inches (76.2 mm) from fasteners on the opposite side of the panel.

Prior to securing the panels to the columns and bearing plates, a bead of sealant must be applied to the inside corners of the EPS foam core in accordance with the SIP manufacturer's installation instructions. Additionally, all seams on the exterior (exposed) face shall be sealed using Fire Barrier Sealant, and all horizontal seams on the interior (unexposed) face shall be sealed using Fire Barrier Sealant, in accordance with the SIP manufacturer's installation instructions.

Note: See Conditions of Listing Item 4 of [ESL-1385](#).

3. **Interior Face Intumescent Coating** – International Fireproof Technology's (IFTI) DC360 intumescent coating shall be applied to the outward side of the plywood facing at a minimum 60 mils (1.52 mm) dry film thickness (DFT) on the interior face of the assembly.
4. **Exterior Face Intumescent Coating** – International Fireproof Technology's (IFTI) DC360 intumescent coating shall be applied to the outward side of the plywood facing at a minimum 60 mils (1.52 mm) dry film thickness (DFT) on the exterior face of the assembly.
5. **Interior Face Cladding and Framing** – Framing for the interior cladding shall consist of minimum 25-gauge (21.9 mils) thick, 1/2-inch (12.7 mm) deep galvanized resilient channels installed horizontally and spaced at a maximum of 48-inches (1219.2 mm) on center. Minimum 29-gauge (14.1 mils) thick and 36 inches (914.4 mm) wide G-100 steel rib panels must be installed vertically to the resilient channel. Fastening of the resilient channel-to-SIP and exterior cladding-to-resilient channel shall be in accordance with the manufacturer's installation instructions.
6. **Exterior Face Cladding and Framing** – Framing for the exterior cladding shall consist of minimum 25-gauge (21.9 mils) thick, 1/2-inch (12.7 mm) deep galvanized resilient channels installed horizontally and spaced at a maximum of 48-inches (1219.2 mm) on center. Minimum 29-gauge (14.1 mils) thick and 36 inches (914.4 mm) wide G-100 steel rib panels must be installed vertically to the resilient channel. Fastening of the resilient channel-to-SIP and exterior cladding-to-resilient channel shall be in accordance with the manufacturer's installation instructions.