



ICC-ES Listing Report ESL-1302

Reissued July 2023

Revised December 2023

This listing is subject to renewal July 2024.

CSI: DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES
Section: 06 16 13—Insulated Sheathing

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.

Products: DUPONT™ ARMORWALL, DUPONT™ ARMORWALL PLUS, DUPONT™ ARMORWALL SYMMETRICAL PANEL (SP), AND DUPONT™ ARMORWALL SP PLUS STRUCTURAL INSULATED SHEATHING PANELS

Listee: DUPONT DE NEMOURS, INC.

Evaluation: **DuPont™ ArmorWall and DuPont™ ArmorWall Plus Structural Insulated Sheathing** panels consist of a Class 1 Rated polyurethane foam insulation layer that is fused directly to the rear face of a ½-inch (12.7 mm) thick sheathing layer. The sheathing layer is a Magnesium Oxide board facer. The insulation layer thicknesses are 1 ½-inch, 2 ¼-inch, or 3 ¼-inch (38.1 mm, 57.2 mm, or 82.6 mm) for the 2-inch, 2 ¾-inch, or 3 ¾-inch (50.8 mm, 69.9 mm, or 95.3 mm) overall sheathing nominal thicknesses, respectively. The DuPont™ ArmorWall and DuPont™ ArmorWall Plus sheathing panels are attached directly to the base wall system, with the insulation layer facing inward, using minimum #14-13 DP1 fasteners with a maximum spacing of 12-inches (305 mm) on center along the perimeter and in the field. DuPont™ ArmorWall Plus contains a factory-applied coating on the exterior face of the sheathing layer. DuPont™ ArmorWall is not factory-coated and must be covered with field applied and approved water-resistant barrier on the outside surface.

DuPont™ ArmorWall SP and DuPont™ ArmorWall SP Plus Structural Insulated Sheathing panels consist of a Class 1 Rated polyurethane foam insulation layer that is fused directly to the rear face of opposing ½-inch (12.7 mm) thick sheathing layers. The sheathing layers are a Magnesium Oxide board facers on each outer face. The insulation layer thicknesses are 1 ¾-inch, 2 ¾-inch, or 3 ¼-inch (44.5 mm, 69.9 mm, or 82.6 mm) for the 2 ¾-inch, 3 ¾-inch, or 4 ¼-inch (69.9 mm, 95.3 mm, or 108.0 mm) overall sheathing nominal thicknesses, respectively. The DuPont™ ArmorWall SP sheathing panel is attached directly to the base wall system using minimum #14-13 DP1 fasteners with a spacing of 12-inches (305 mm) on center along the perimeter and in the field. DuPont™ ArmorWall SP Plus contains a factory-applied coating on the exterior face of the sheathing layer. DuPont™ ArmorWall SP is not factory-coated and must be covered with field applied and approved water-resistant barrier on the outside surface.

The DuPont™ ArmorWall, DuPont™ ArmorWall Plus, DuPont™ ArmorWall SP, and DuPont™ ArmorWall SP Plus Structural Insulated Sheathing panels were evaluated based on tested load bearing wall assemblies consisting of building-material components described in the Design Listings, tested in accordance with the following standards:

- ASTM E119-18B and ASTM E119-16, Standard Test Methods for Fire Tests of Building Construction and Materials, ASTM International.

- UL 263-11 (with revisions through March 2018) and UL 263-11 (with revisions through June 2015), Standard for Fire Tests of Building Construction and Materials, Underwriters Laboratories, Inc.
- CAN/ULC-S101-14, Standard Methods of Fire Endurance Tests of Building Construction and Materials, ULC Standards.

Findings:

Evaluation of DuPont™ ArmorWall, DuPont™ ArmorWall Plus (2-inch, 2 3/4-inch, or 3 3/4-inch thick), DuPont™ ArmorWall SP, and DuPont™ ArmorWall SP Plus (2 3/4-inch, 3 3/4-inch, or 4 1/4-inch thick) Structural Insulated Sheathing panels, 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 and 2018 *International Building Code*® (IBC)
Applicable Section: 703.2
- 2021 and 2018 *International Residential Code*® (IRC)
Applicable Section: R302
- *National Building Code of Canada*® 2020 and 2015
Applicable Section: Volume 1-Division B: Section 3.1.7

Identification:

1. Product labeling shall include, the name of the report holder or listee, and the ICC-ES Listing Mark. The listing or evaluation report number (ICC-ES ESL-1302) may be used in lieu of the ICC-ES Listing Mark. The DuPont™ ArmorWall, DuPont™ ArmorWall Plus, DuPont™ ArmorWall SP, and DuPont™ ArmorWall SP Plus Structural Insulated Sheathing Panels described in this listing are identified by a label on the panel or packaging material bearing the DuPont de Nemours, Inc. name, product name, plant code or manufacturing address, other information to confirm standard compliance, and the ICC-ES Listing number ([ESL-1302](#)).
2. The report holder's contact information is the following:

DUPONT DE NEMOURS, INC.
1335 LITTON DRIVE
SALISBURY, NORTH CAROLINA 28147
(844) 629-4968
www.dupont.com

Installation:

The DuPont™ ArmorWall, DuPont™ ArmorWall Plus, DuPont™ ArmorWall SP, and DuPont™ ArmorWall SP Plus Structural Insulated Sheathing panels must be installed in accordance with the DuPont de Nemours, Inc'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. The design loads (ASD) used in testing for the load-bearing cold-formed steel-framed walls are based on the allowable axial load of the wall framing studs and support bracing (if applicable) in accordance with AISI S100 (North American Specification for the Design of Cold-Formed Steel Structural Members), unless noted otherwise. Sheathing was not considered in the calculation of the design loads.
5. The design loads (ASD) used in testing for the load-bearing wood-framed walls are based on the allowable axial load of the wall framing studs and support bracing (if applicable) in accordance with the NDS (National Design Specification for Wood Construction), unless noted otherwise. Sheathing was not considered in the calculation of the design loads.
6. Greater stud sizes (depths) shall be permitted to be used in metal- or wood-stud systems in accordance with Section 12.5.2 of ASTM E2032 (Standard Guide for Extension of Data from Fire Resistance Tests Conducted in Accordance with ASTM E119) or ULC/ORD-C263E (Criteria for Use in Extension of Data from Fire Endurance Tests) in accordance with CAN/ULC-S101, and the principles pertaining to the fire resistance rating of wall assemblies.
7. 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.
8. DuPont de Nemours, Inc's DuPont™ ArmorWall, DuPont™ ArmorWall Plus, DuPont™ ArmorWall SP, and DuPont™ ArmorWall SP Plus Structural Insulated Sheathing panels are manufactured under a quality control program with inspections by ICC-ES.

Applicant: DUPONT DE NEMOURS, INC.

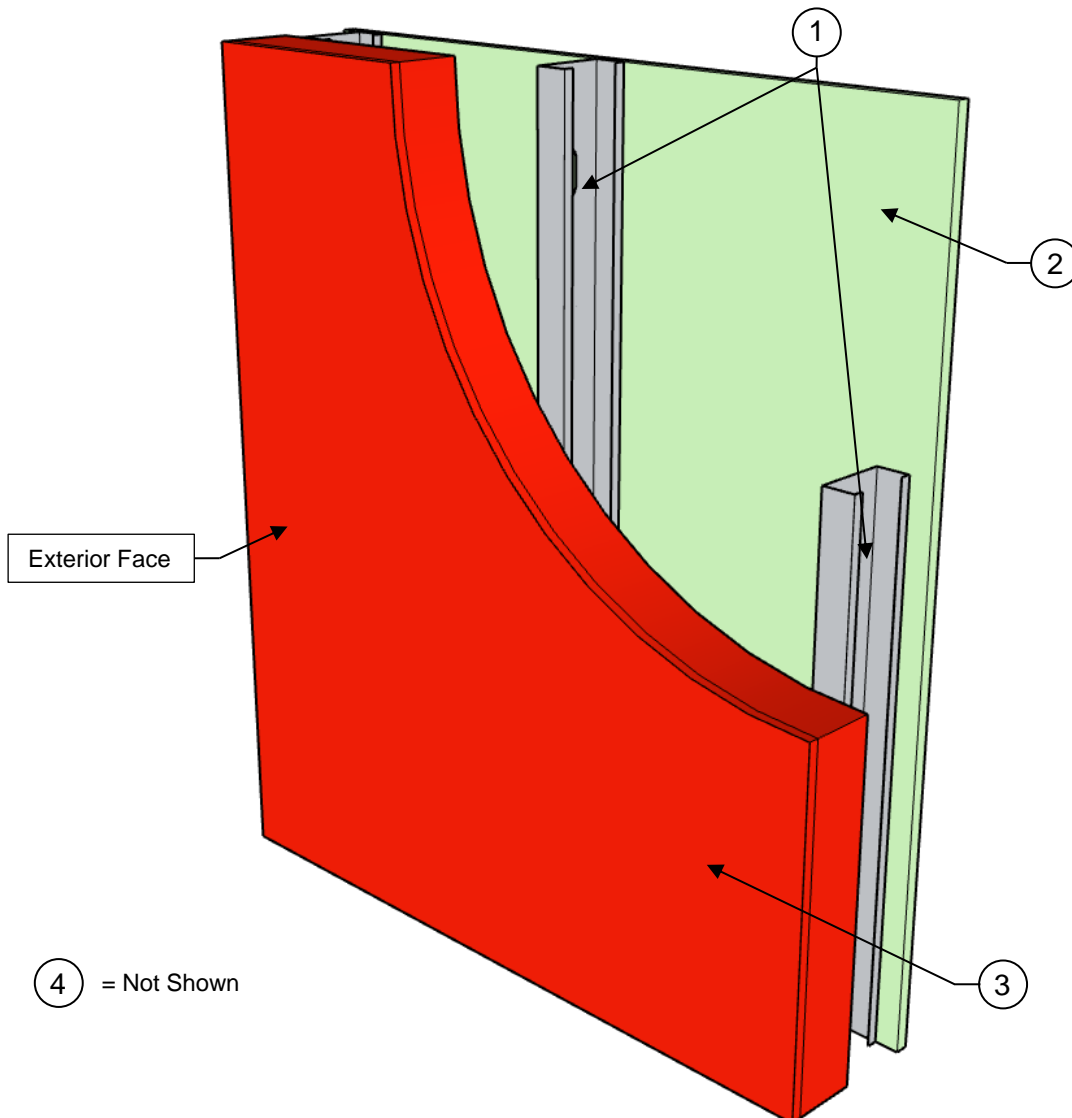
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 1/2-Hour

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₄-inch (6.4 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 2-inch x 2-inch (50.8 mm x 50.8 mm) galvanized steel angles at each end with two #6 x ¹/₂-inch (12.7 mm) self-drilling screws.

Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – One layer of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the interior side of the wall assembly, using 1 ¹/₄-inch (31.8 mm) Type S drywall screws spaced 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 ³/₄-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

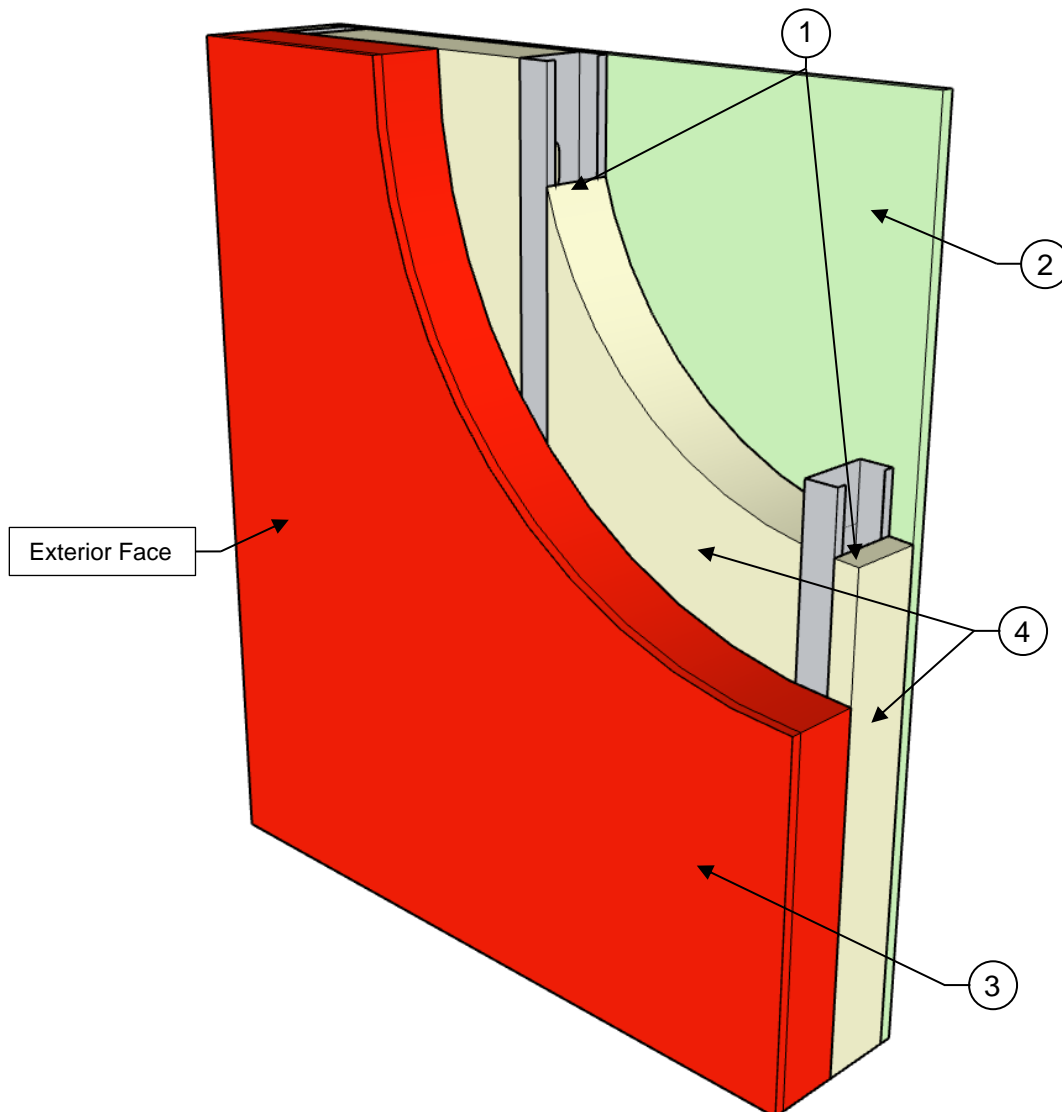
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 1-Hour

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₄-inch (6.4 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 2-inch x 2-inch (50.8 mm x 50.8 mm) galvanized steel angles at each end with two #6 x ¹/₂-inch (12.7 mm) self-drilling screws.

Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – One layer of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the interior side of the wall assembly, using 1 ¹/₄-inch (31.8 mm) Type S drywall screws spaced 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 ³/₄-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

4. **Insulation** – Minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

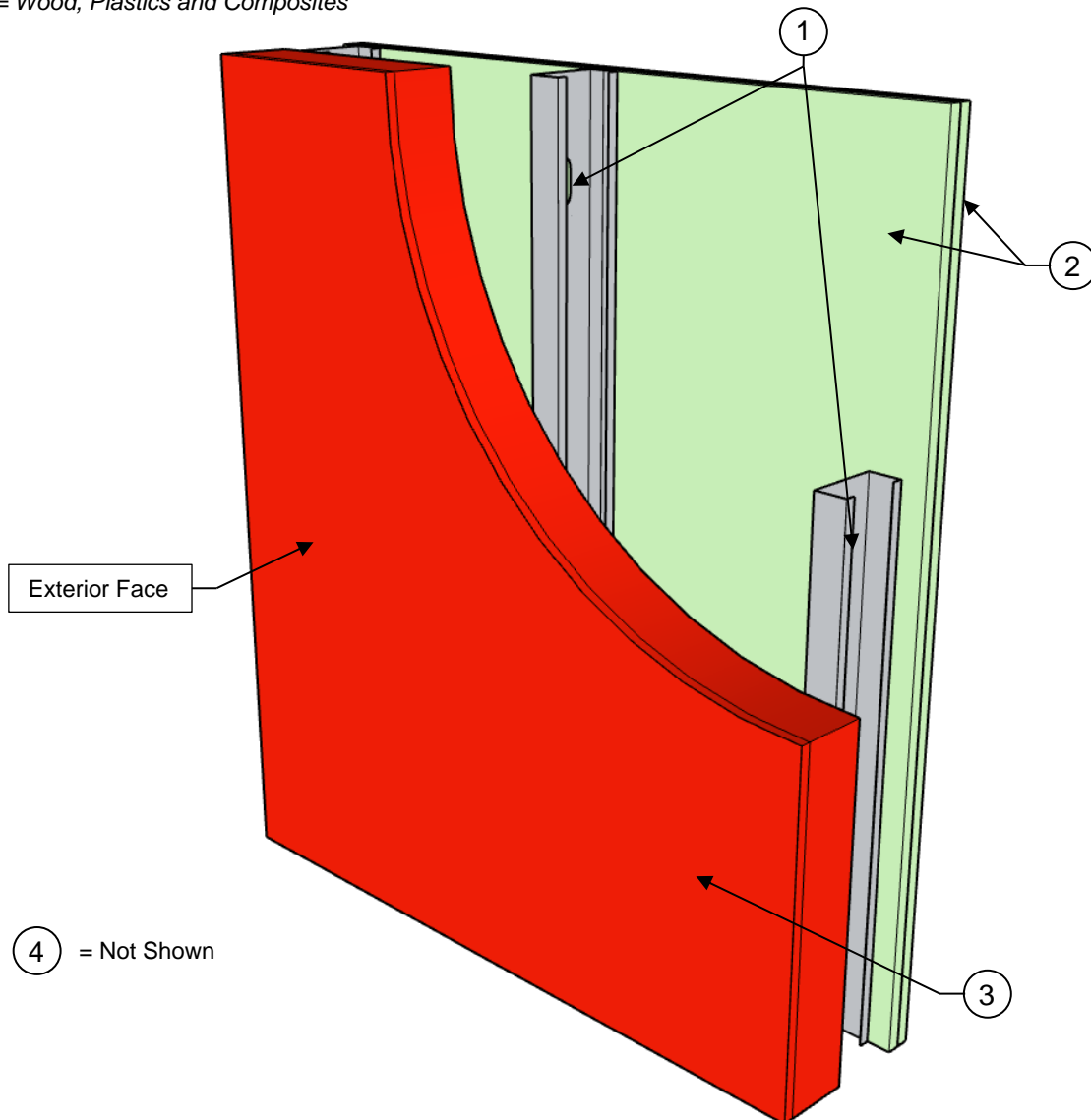
Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly

Rating: 2-Hour from the Interior Face, 1-Hour from the Exterior Face

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₄-inch (6.4 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 2-inch x 2-inch (50.8 mm x 50.8 mm) galvanized steel angles at each end with two #6 x ¹/₂-inch (12.7 mm) self-drilling screws.

Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 ⁷/₈-inch (47.6 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 ³/₄-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

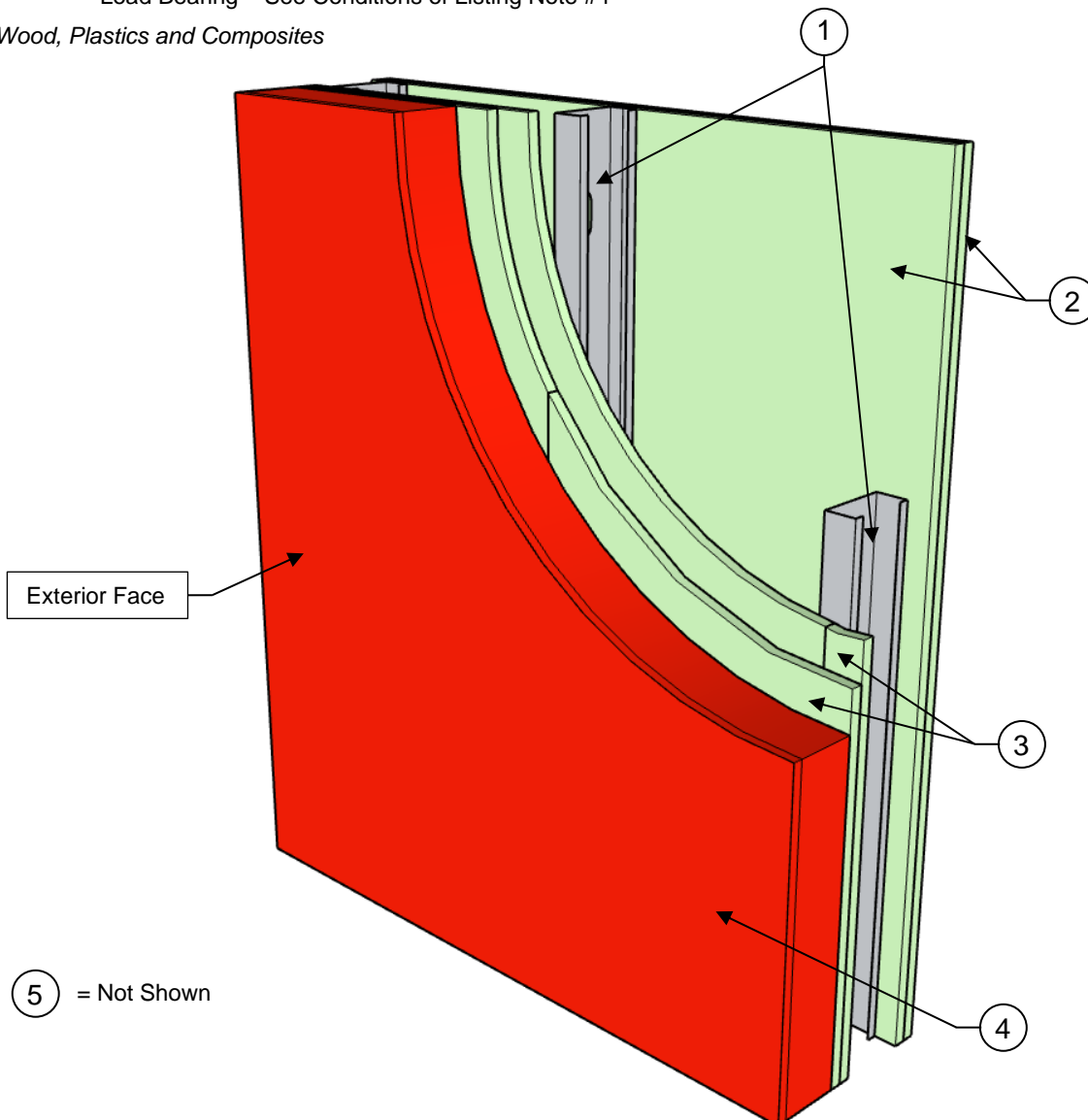
Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly

Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₄-inch (6.4 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 2-inch x 2-inch (50.8 mm x 50.8 mm) galvanized steel angles at each end with two #6 x ¹/₂-inch (12.7 mm) self-drilling screws.

Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 ⁷/₈-inch (47.6 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (Gypsum Wallboard)** – Two layers of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the exterior side of the wall assembly. The base layer must be secured to the framing using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 ⁷/₈-inch (47.6 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
4. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured through the face and base layers of gypsum wallboard to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 6-inch (152.4 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 ³/₄-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

- 5a. **Insulation** – None
- 5b. **Insulation (Not Shown)** – Optional minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
- 5c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
6. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

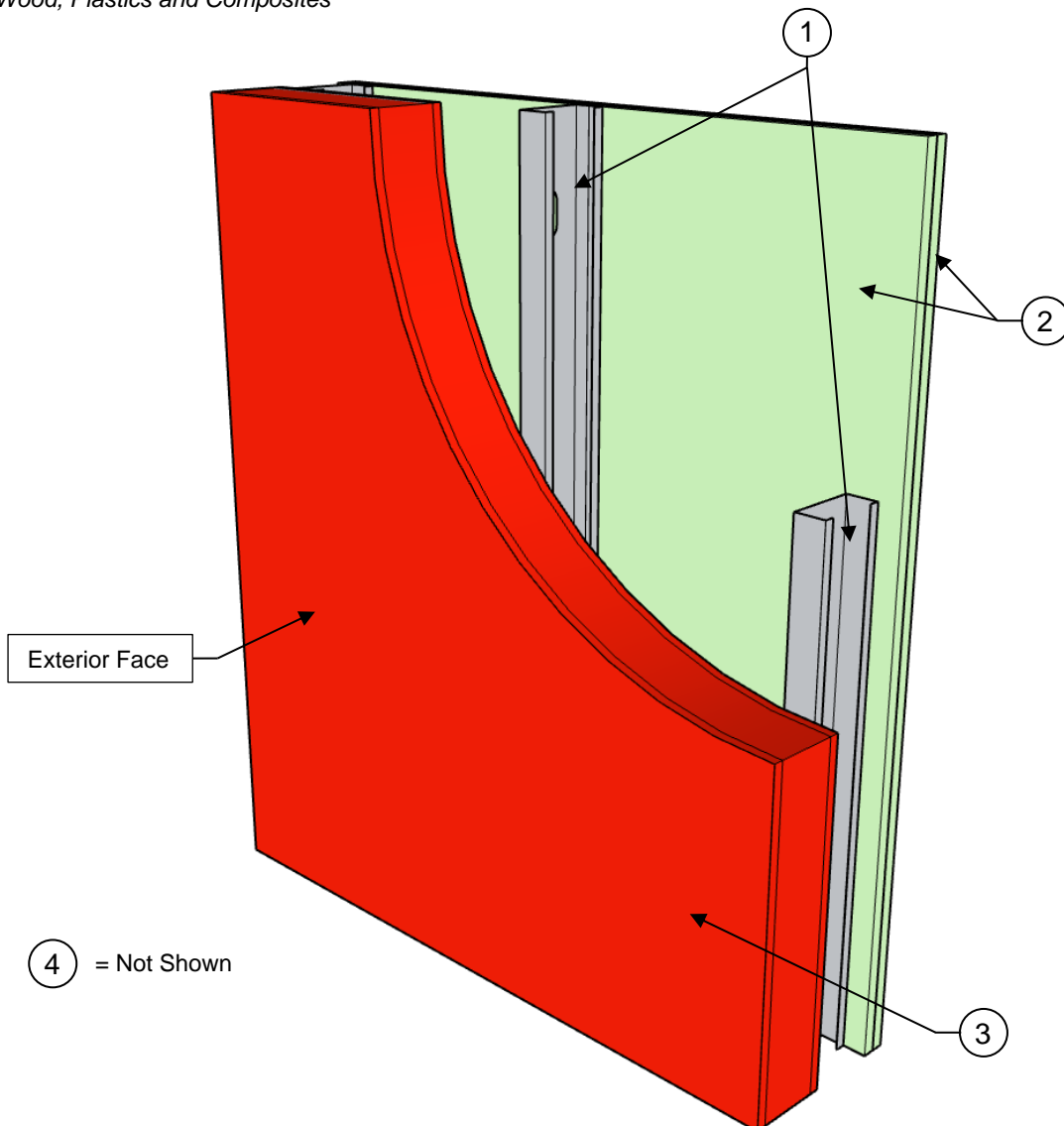
Product: DUPONT™ ARMORWALL SP AND DUPONT™ ARMORWALL SP PLUS STRUCTURAL INSULATED SHEATHING: 2 3/4-INCH, 3 3/4-INCH, AND 4 1/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₄-inch (6.4 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 2-inch x 2-inch (50.8 mm x 50.8 mm) galvanized steel angles at each end with two #6 x ¹/₂-inch (12.7 mm) self-drilling screws.

Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 ⁷/₈-inch (47.6 mm) long Type S screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall SP)** – One layer of maximum 4 ¹/₄-inch (108.0 mm) thick DuPont™ ArmorWall SP or DuPont™ ArmorWall SP Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly, using minimum 6-inch (152.4 mm) long minimum #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall SP and DuPont™ ArmorWall SP Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2 ³/₄-inch (69.9 mm) or 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall SP or DuPont™ ArmorWall SP Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

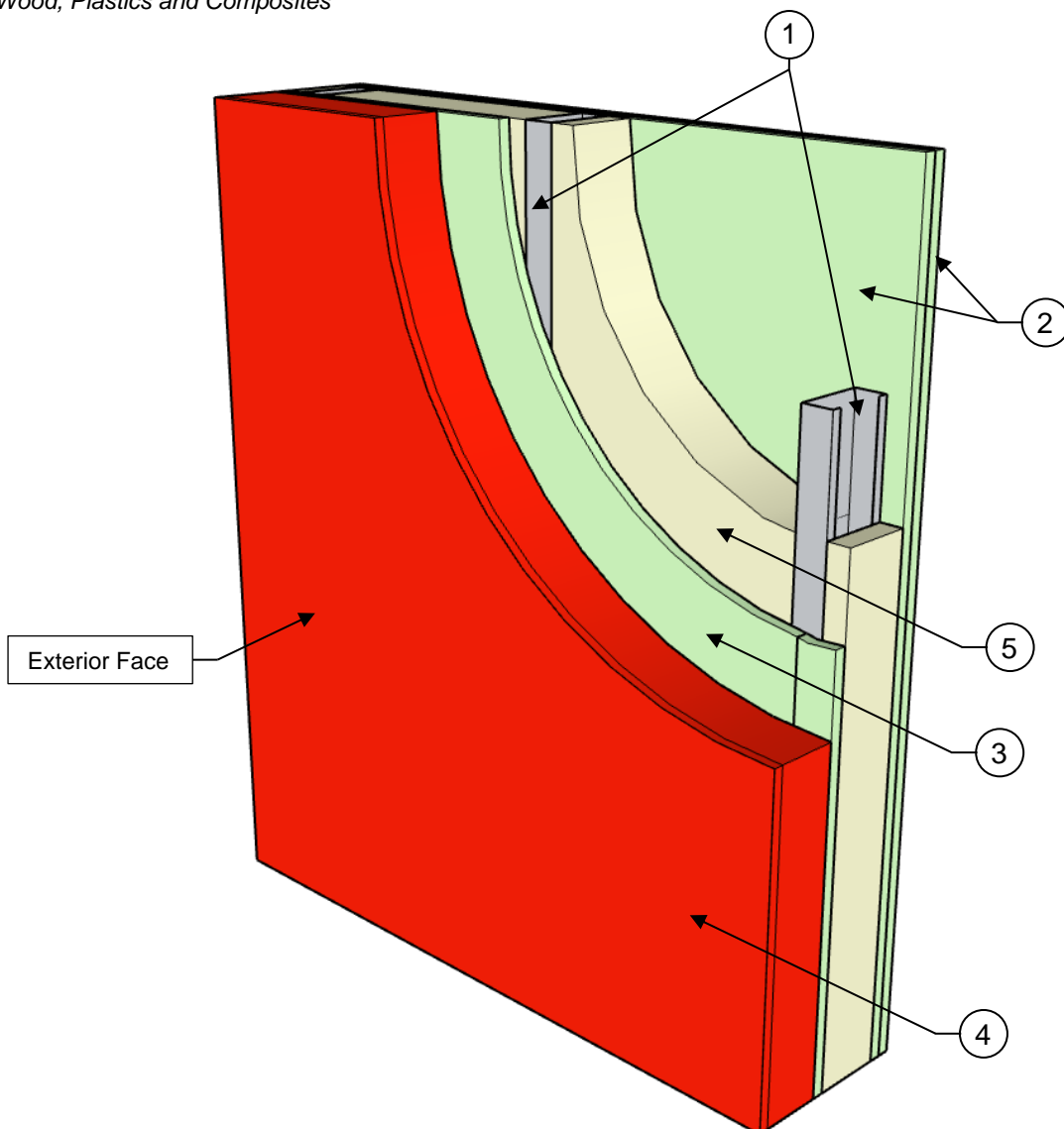
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #4

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Cold-Formed Steel Structural Members** – Minimum 3 ⁵/₈-inch (92 mm) deep, minimum 20 gauge (37.5 mils), corrosion-protected or galvanized steel channel-shaped studs spaced maximum 24 inches (609.6 mm) on center installed into same gauge thick track at top and bottom of wall (track not shown). Steel studs must have minimum 1 ⁵/₈-inch (41.3 mm) flanges and ¹/₂-inch (12.7 mm) return. Steel studs must be secured to the track framing with ¹/₂-inch (12.7 mm) Type S-12 screws. 16-gauge (62.5 mils) steel channel blocking, 1 ¹/₂-inch (38.1 mm) wide with ¹/₂-inch (12.7 mm) legs, is installed mid-height of the wall along the length of the wall (blocking not shown). Steel channel blocking is attached with 16 gauge (62.5 mils) 1 ¹/₂-inch x 1 ¹/₂-inch (38.1 mm x 38.1 mm) galvanized steel angles at each end with two #10 x ³/₄-inch (19.1 mm) self-drilling screws.

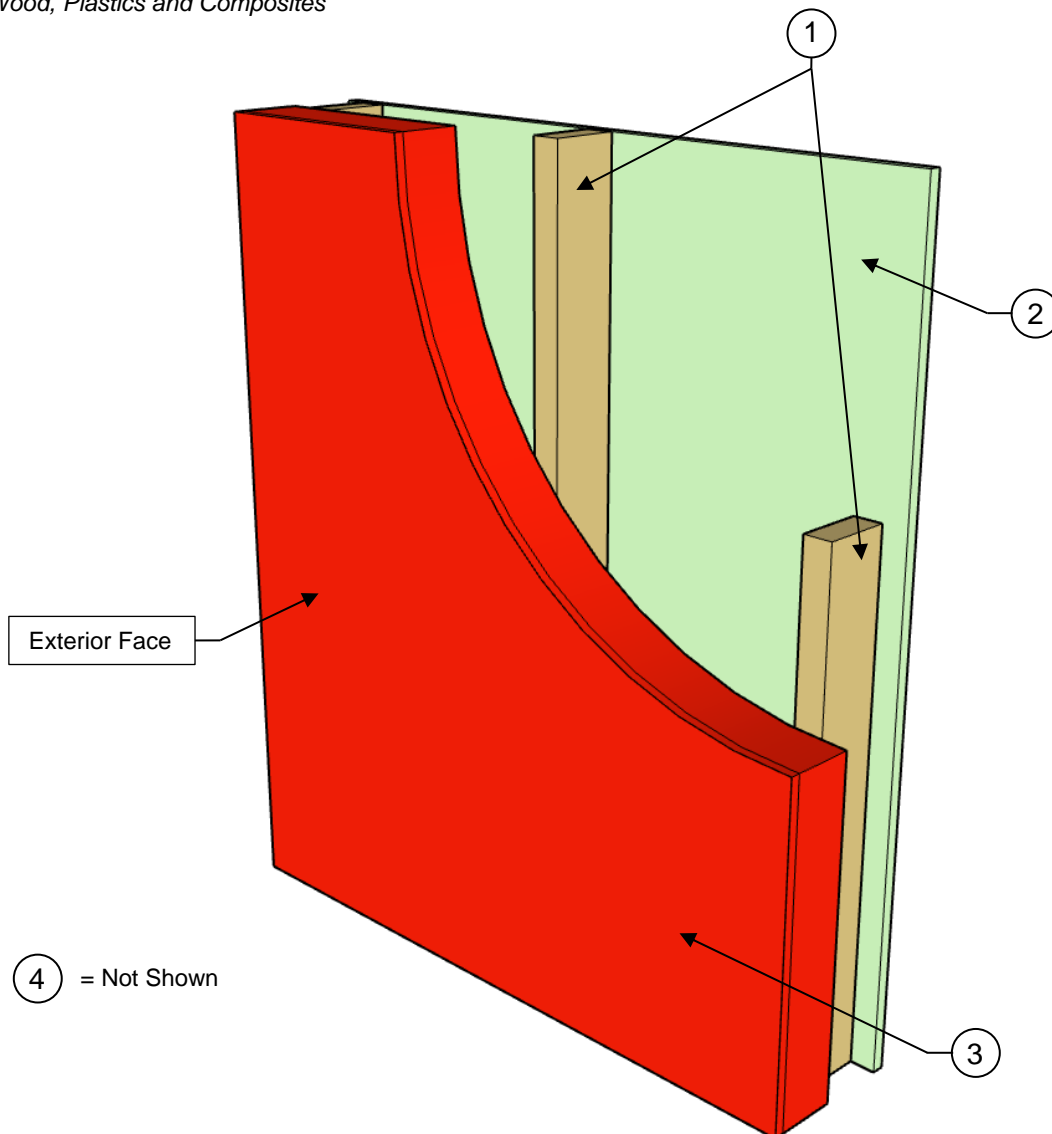
Note: See Conditions of Listing Items 4 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 ⁵/₈-inch (41.3 mm) long Type S screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.
3. **Exterior Sheathing (Gypsum Wallboard)** – One layer of minimum ⁵/₈-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the exterior side of the wall assembly, using 1 ¹/₄-inch (31.8 mm) long Type S screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field of the gypsum wallboard. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Horizontal and vertical gypsum wallboard panel edge joints are permitted to be left uncovered without joint compound.
4. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 ³/₄-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured through the exterior sheathing to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 6-inch (152.4 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 ³/₄-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

5. **Insulation** – Minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 ¹/₂-inches (88.9 mm) and a minimum density of 2.0 lbs./ft³ (32 kg/m³) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.
6. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS
Standard: ASTM E119 (UL 263) / CAN/ULC-S101
Assembly Rating: 1/2-Hour
Load: Load Bearing – See Conditions of Listing Note #5
WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – One layer of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the interior side of the wall assembly, using 1 1/4-inch (31.8 mm) Type W drywall screws spaced 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 3/4-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

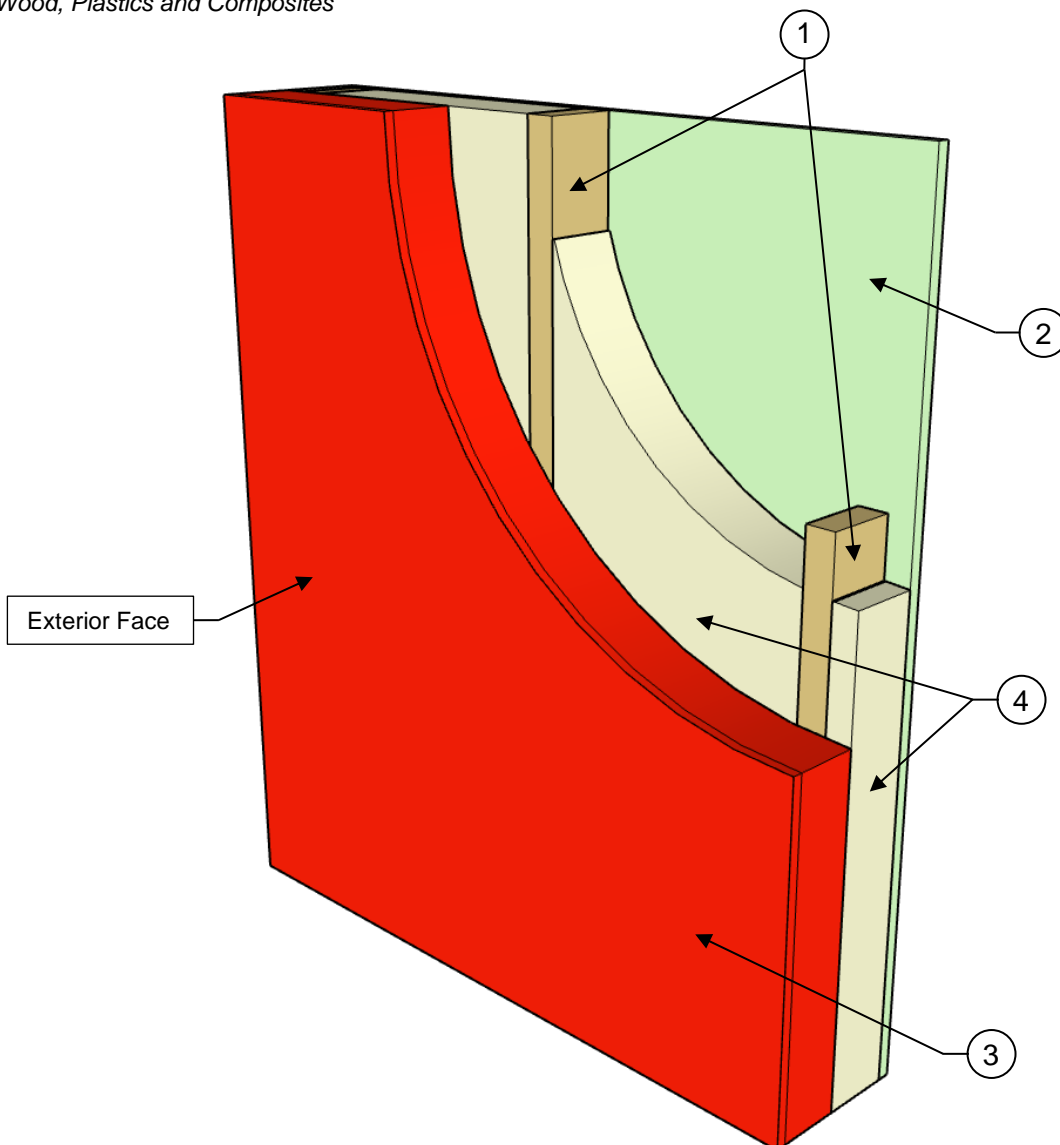
Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly

Rating: 1-Hour

Load: Load Bearing – See Conditions of Listing Note #5

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (I_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – One layer of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the interior side of the wall assembly, using 1 1/4-inch (31.8 mm) Type W drywall screws spaced 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 3/4-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

4. **Insulation** – Minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

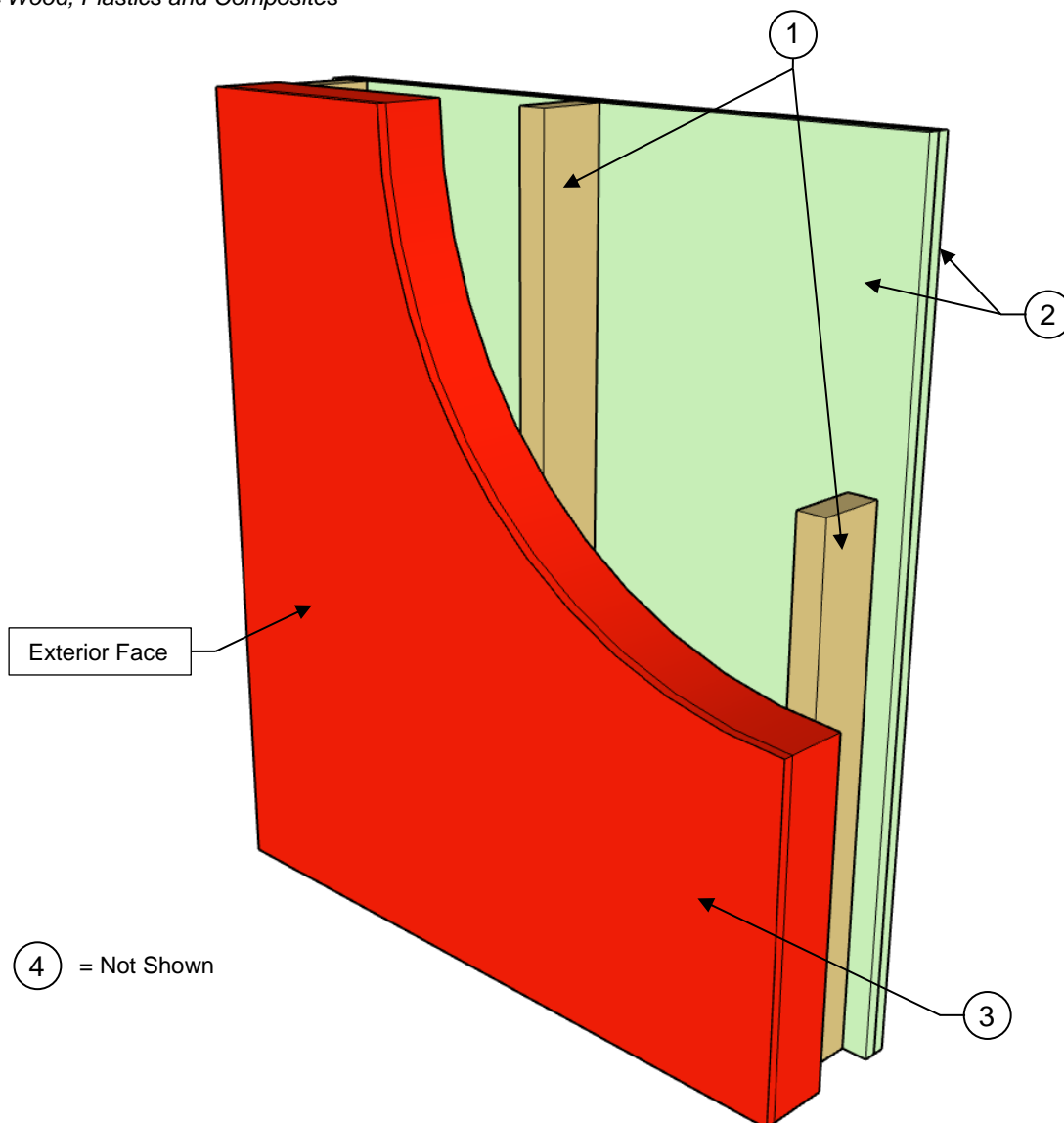
Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly

Rating: 2-Hour from the Interior Face, 1-Hour from the Exterior Face

Load: Load Bearing – See Conditions of Listing Note #5

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 1/4-inch (31.8 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 7/8-inch (47.6 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 5-inch (127 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 3/4-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 3-inch (76.2 mm) or 4-inch (101.6 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

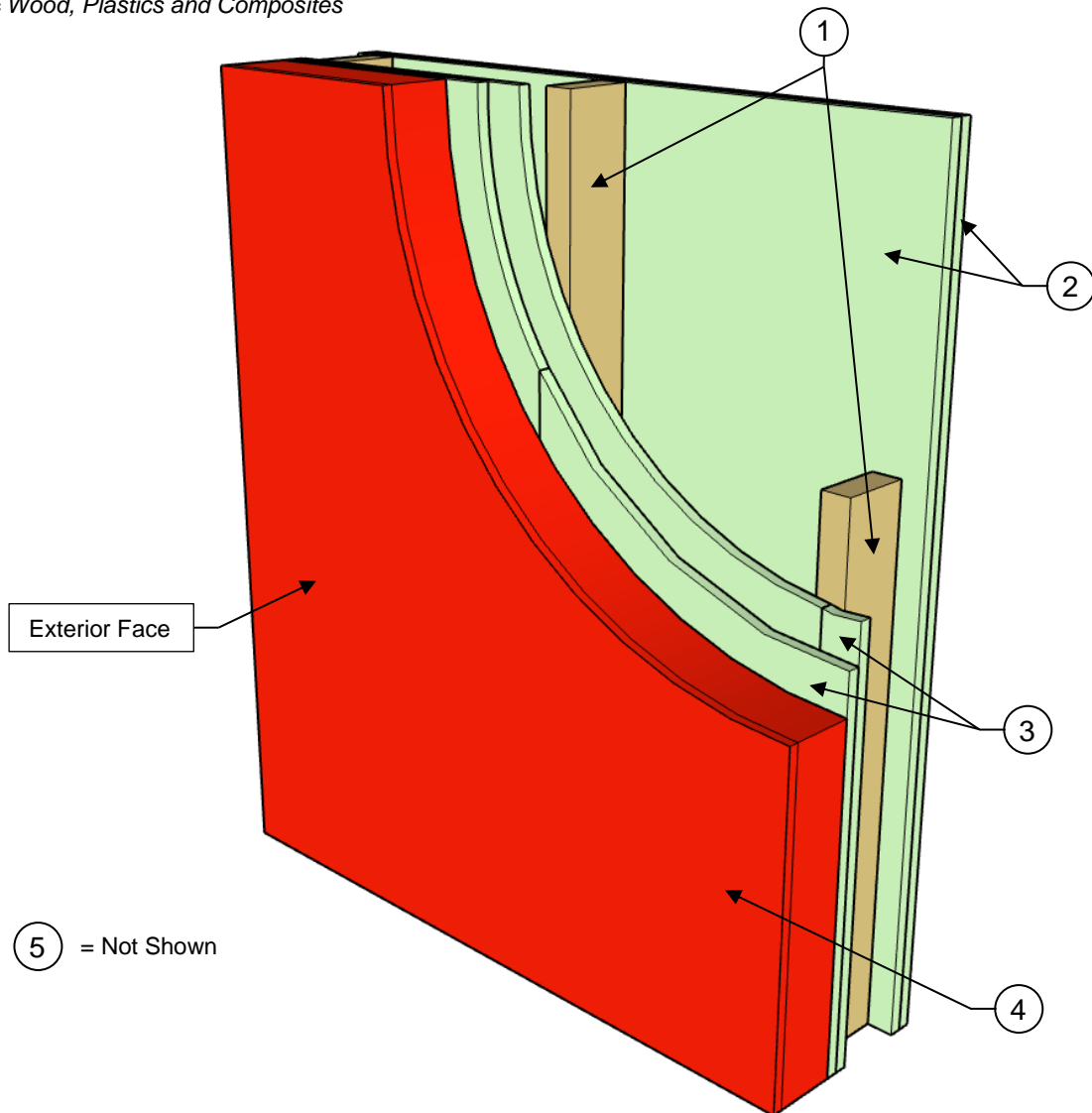
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #5

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (I_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 1/4-inch (31.8 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 7/8-inch (47.6 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (Gypsum Wallboard)** – Two layers of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the exterior side of the wall assembly. The base layer must be secured to the framing using 1 1/4-inch (31.8 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 7/8-inch (47.6 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
4. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured through the face and base layers of gypsum wallboard to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 6-inch (152.4 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 3/4-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

- 5a. **Insulation** – None
- 5b. **Insulation (Not Shown)** – Optional minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
- 5c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
6. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

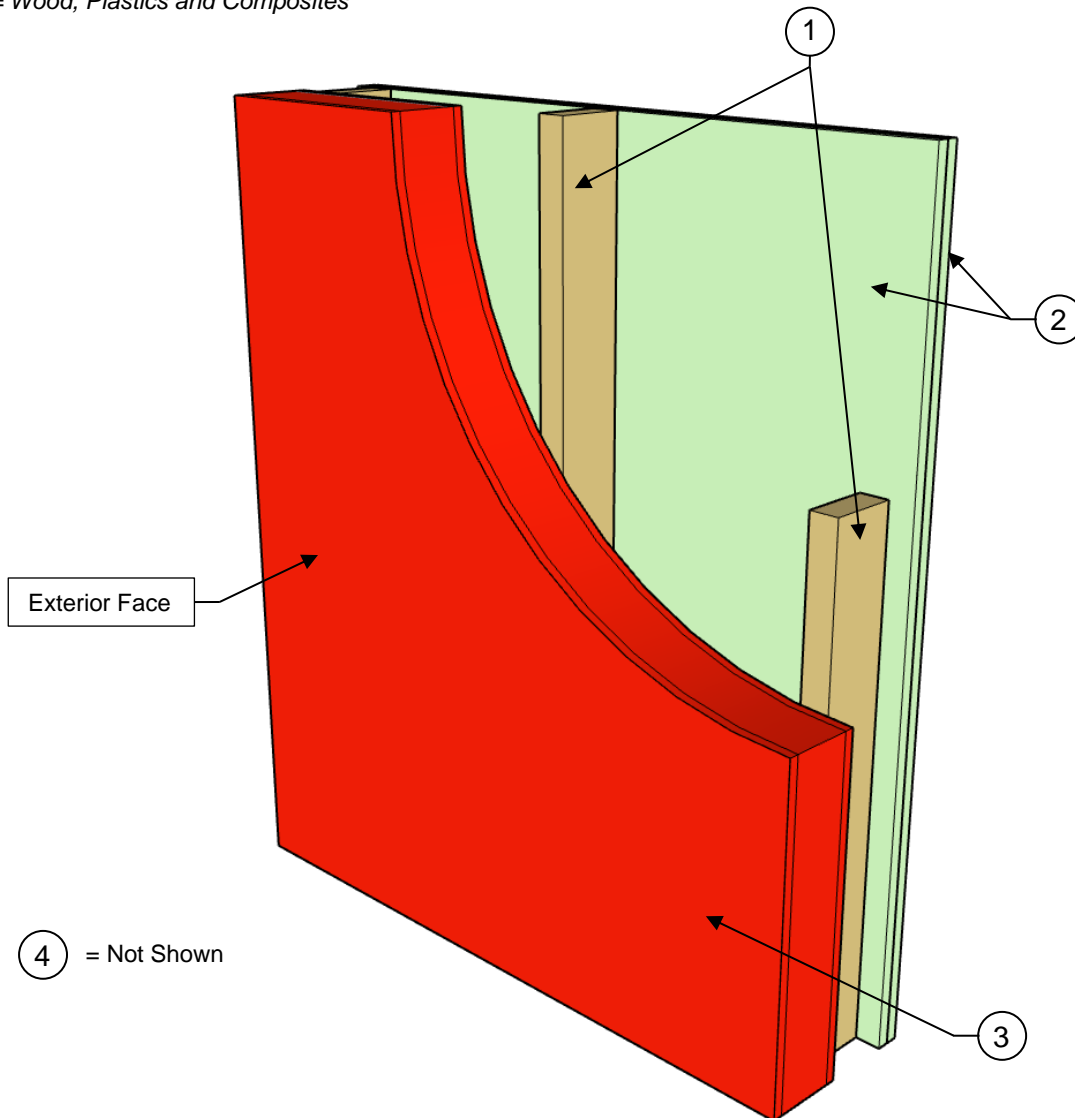
Product: DUPONT™ ARMORWALL SP AND DUPONT™ ARMORWALL SP PLUS STRUCTURAL INSULATED SHEATHING: 2 3/4-INCH, 3 3/4-INCH, AND 4 1/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #5

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 1/4-inch (31.8 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 7/8-inch (47.6 mm) long Type W screws spaced at 12 inches (304.8 mm) on center along the perimeter and in the field, with the face layer screws staggered 6 inches (152.4 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with one layer of joint compound.
3. **Exterior Sheathing (DuPont™ ArmorWall SP)** – One layer of maximum 4 1/4-inch (108.0 mm) thick DuPont™ ArmorWall SP or DuPont™ ArmorWall SP Plus Structural Insulated Sheathing is secured directly to the base wall system framing, on the exterior side of the wall assembly, using minimum 6-inch (152.4 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall SP and DuPont™ ArmorWall SP Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2 3/4-inch (69.9 mm) or 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall SP or DuPont™ ArmorWall SP Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

- 4a. **Insulation** – None
- 4b. **Insulation (Not Shown)** – Optional minimum R-13 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
- 4c. **Insulation (Not Shown)** – Optional minimum R-13 glass fiber insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) is friction-fit into each stud cavity.
5. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.

Applicant: DUPONT DE NEMOURS, INC.

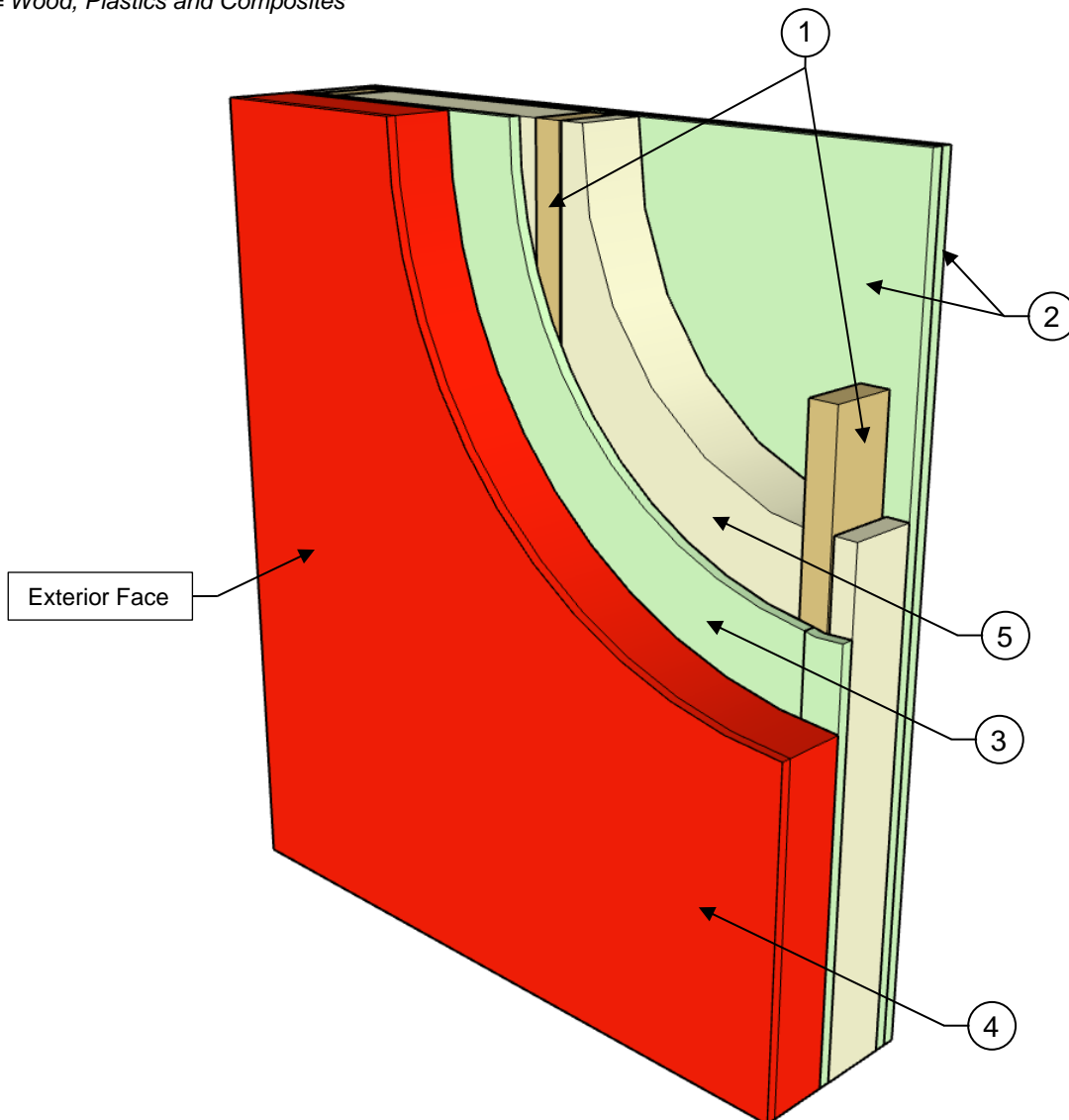
Product: DUPONT™ ARMORWALL AND DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING: 2-INCH, 2 3/4-INCH, AND 3 3/4-INCH THICK PANELS

Standard: ASTM E119 (UL 263) / CAN/ULC-S101

Assembly Rating: 2-Hour

Load: Load Bearing – See Conditions of Listing Note #5

WPC = Wood, Plastics and Composites



COMPONENTS OF CONSTRUCTION:

1. **Wood Framing** – Minimum 2-inch by 4-inch (50.8 mm by 101.6 mm) wood studs with a governing slenderness ratio (l_e/d) of 38.5, spaced maximum 24 inches (609.6 mm) on center, with blocking at mid-height in the weak-axis direction, are secured to top and bottom plates with 16d – 3 1/2-inch (88.9 mm) long x 0.131-inch (3.33 mm) diameter smooth shank framing nails. A double top plate is secured to the first top plate with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails spaced 16 inches (406.4 mm) on center. Full-depth blocking is installed between each stud at mid-height of the wall assembly and secured with 3-inch (76.2 mm) long x 0.131-inch (3.33 mm) diameter nails.

Note: See Conditions of Listing Items 5 and 6 of [ESL-1302](#).

2. **Interior Sheathing (Gypsum Wallboard)** – Two layers of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges are secured directly to the base wall system framing, on the interior side of the wall assembly. The base layer must be secured to the framing using 1 1/4-inch (31.8 mm) long Type W screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field of the gypsum wallboard. The face layer, with vertical panel joints staggered from the base layer, must be secured to the framing using 1 5/8-inch (41.3 mm) long Type W screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field, with the face layer screws staggered 4 inches (101.6 mm) from the base layer screws. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. All face layer sheathing joints must be treated with two coats of joint compound with nominal 2-inch wide paper tape embedded in first layer of compound over all joints. All fastener heads must be covered with two layers of joint compound.
3. **Exterior Sheathing (Gypsum Wallboard)** – One layer of minimum 5/8-inch (15.9 mm) thick Type X gypsum wallboard with beveled edges is secured directly to the base wall system framing, on the exterior side of the wall assembly, using 1 1/4-inch (31.8 mm) long Type W screws spaced at 8 inches (203.2 mm) on center along the perimeter and 12 inches (304.8 mm) on center in the field of the gypsum wallboard. Gypsum wallboard may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Horizontal and vertical gypsum wallboard panel edge joints are permitted to be left uncovered without joint compound.
4. **Exterior Sheathing (DuPont™ ArmorWall)** – One layer of maximum 3 3/4-inch (95.3 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus Structural Insulated Sheathing is secured through the exterior sheathing to the base wall system framing, on the exterior side of the wall assembly with the insulation layer of the panel facing inward, using minimum 6-inch (152.4 mm) long #14-13 DP1 concealer pancake head self-drilling screws spaced 12 inches (304.8 mm) on center along the perimeter and in the field. DuPont™ ArmorWall and DuPont™ ArmorWall Plus panels may be installed vertically or horizontally to the studs. All vertical seams must fall on studs and must be staggered from one side of the assembly to the opposite sides of the assembly. Joints and fastener heads must be treated with one layer of DuPont™ ArmorSeal Sealant.

Note: Where one layer of 2-inch (50.8 mm) or 2 3/4-inch (69.9 mm) thick DuPont™ ArmorWall or DuPont™ ArmorWall Plus is used, minimum #14-13 DP1 concealer pancake head self-drilling screw lengths must be minimum 4-inch (101.6 mm) or 5-inch (127 mm) long, respectively.

5. **Insulation** – Minimum R-15 mineral wool insulation, bearing the UL Classification Marking for surface burning and/or fire resistance, with nominal thickness of 3 1/2-inches (88.9 mm) and a minimum density of 2.0 lbs./ft³ (32 kg/m³) is friction-fit into each stud cavity. The insulation thickness must match the stud cavity depth.
6. **Exterior Facing Assembly (Not Shown)** – Any exterior facing, as authorized by the Authority having jurisdiction and installed in accordance with the manufacturer's installation instructions.