



ICC-ES Listing Report ESL-1536

Reissued July 2024

This listing is subject to renewal in July 2025.

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 evidence in support of test data 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: DUPONT™ ARMORWALL PLUS STRUCTURAL INSULATED SHEATHING PANELS

Listee: DUPONT DE NEMOURS, INC

Evaluation: DuPont™ ArmorWall Plus Structural Insulated Sheathing Panels were evaluated based on testing to the following standards:

- ASTM E72-22, Standard Test Methods of Conducting Strength Tests of Panels for Building Construction, ASTM International.

Description of Products:

DuPont™ ArmorWall Plus: Available in 4 ft x 8 ft or 4 ft x 10 ft (1.22 x 2.44 m or 1.22 x 3.05 m) panels. Each structural insulated sheathing panel consists of urethane insulation fused directly to the rear face of a 1/2-inch (12.7 mm) thick sheathing layer. The sheathing layer is Magnesium Oxide board facer. The insulation layer's nominal density is 3.23 pcf (51.7 kg/m³) and has thicknesses of 1 1/2, 2 1/4, and 3 1/4 inches (38.1, 57.2, and 82.6 mm) for 2, 2 3/4, and 3 3/4-inch (50.8, 69.9, and 95.3 mm) overall sheathing nominal thicknesses, respectively. DuPont™ ArmorWall Plus contains a factory-applied coating on the exterior face of the sheathing layer.

Findings: DuPont™ ArmorWall Plus Structural Insulated Sheathing Panels have the following nominal in-plane shear loads as specified in Table 1 below, based on testing in accordance with ASTM E72.

Identification:

1. The ICC-ES mark of conformity, electronic labeling, or the listing report number (ICC-ES ESL-1536) along with the name, registered trademark, or registered logo of the listee must be included in the product label. [Electronic labeling is the ICC-ES web address (www.icc-es.org); specific URL related to the report; or the ICC-ES machine-readable code placed on the aforementioned items.]
2. In addition, packaging of the DuPont™ ArmorWall Plus Structural Insulated Sheathing Panels carries a label indicating the manufacturer's address, the product name, and the ICC-ES Listing Mark.
3. The report holder's contact information is the following:

DUPONT DE NEMOURS, INC.
974 CENTRE ROAD, BUILDING 730
WILMINGTON, DELAWARE 19805
(866) 583-2583
www.dupont.com

Installation: The DuPont™ ArmorWall Plus Structural Insulated Sheathing Panels shall be fabricated, identified and erected in accordance with this report, the approved construction documents and the applicable code.

The products must be installed in accordance with the DuPont de Nemours, Inc's published installation instructions and applicable codes. DuPont™ ArmorWall Plus sheathing panels are attached directly to a base wall system of wood and cold-formed steel members, as specified in Table 1. The DuPont™ ArmorWall Plus panels are installed so that the insulation layer is in contact with the framing system.

Conditions of listing:

1. The listing report addresses only conformance with the standard noted above.
2. Approval of the product's use is the sole responsibility of the local code official.
3. The listing report applies only to the materials tested and as submitted for review by ICC-ES.
4. The nominal loads listed in Table 1 are not intended to be used as design values.
5. The DuPont™ ArmorWall Plus Structural Insulated Sheathing Panels are manufactured under a quality control program with inspections by ICC-ES.

TABLE 1—ASTM E72 TEST PERFORMANCE

SHEATHING SERIES	BASE WALL FRAMING TYPE AND SPACING	SHEATHING NOMINAL THICKNESS (in.)	PANCAKE HEAD SCREW FASTENER TYPE	FASTENER SPACING (in.)	IN-PLANE RACKING SHEAR LOADS (plf) ^{1,2,3}	
					NOMINAL LOAD WET / DRY	LOAD AT 0.2 INCH DEFLECTION WET / DRY
DuPont™ ArmorWall Plus Structural Insulated Sheathing™	2 by 4 Southern Yellow Pine (SYP) wood stud spaced 16 inches O.C.	2	No. 14-13 x 3" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 266.6	37.1 / 42.1
		2 ¾	No. 14-13 x 4" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 266.6	37.1 / 35.4
		3 ¾	No. 14-13 x 5" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 266.6	39.6 / 35.4
	2 by 4 Southern Yellow Pine (SYP) wood stud spaced 24 inches O.C.	2	No. 14-13 x 3" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 258.4	43.5 / 55.0
		2 ¾	No. 14-13 x 4" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 216.6	43.5 / 29.8
		3 ¾	No. 14-13 x 5" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	258.4 / 216.6	45.4 / 29.8
	2 by 6 No. 18 Gauge (43 mil, 33 ksi) cold-formed steel members with max. on center spacing of 16 inches	2	No. 14-13 x 3" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 258.4	32.7 / 39.9
		2 ¾	No. 14-13 x 4" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	250.0 / 233.4	31.2 / 29.5
		3 ¾	No. 14-13 x 5" DP1 Concealor with ½-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	258.4 / 233.4	31.2 / 29.5
	2 by 6 No. 16 Gauge (55 mil, 50 ksi) cold-formed steel members with max. on center spacing of 16 inches	2	¼-14 x 3" DP3 Concealor with 0.62-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	283.4 / 291.6	44.2 / 38.1
		2 ¾	No. 14-13 x 4" DP3 Concealor with 0.62-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	241.6 / 275.0	40.4 / 30.6
		3 ¾	¼-14 x 5" DP3 Concealor with 0.62-inch dia. Head	12-inch O.C. vertically and at perimeter of each panel at ¾ inch from panel edges	241.6 / 275.0	40.4 / 30.6

For SI: 1 inch = 25.4 mm; 1 pound per linear foot (plf) = 14.6 N/m;

¹ Reported values are based on vertically oriented sheathing, 8-foot (2.44 m) tall wall panels.

² Reported values have not been adjusted for safety factors and are not intended to be used as design values for allowable stress design.

³ Reported values are based on racking shear tests conducted in accordance with ASTM E72 of a 96-inch-high by 96-inch-long wall assembly.