SECTION 061600 - SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Gypsum sheathing.
2. Composite nail base insulated sheathing panels for metal roof assemblies.
3. Composite insulated wall sheathing panels.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

1.3 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For composite insulated wall sheathing panels, from ICC-ES.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: As tested according to ASTM E 119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

B. Fire-Resistance Exterior Wall Assembly: As tested according to NFPA 285; tested by a qualified testing agency. All components of the exterior wall assembly shall be part of the tested Exterior Wall Assembly.

2.2 FIRE-RETARDANT-TREATED PLYWOOD

A. General: Where fire-retardant-treated materials are indicated, use materials complying with requirements in this article that are acceptable to authorities having jurisdiction and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.

1. Use treatment that does not promote corrosion of metal fasteners.

C. Kiln-dry material after treatment to a maximum moisture content of 15 percent. Do not use material that is warped or does not comply with requirements for untreated material.

D. Identify fire-retardant-treated plywood with appropriate classification marking of qualified testing agency.

E. Application: Treat all plywood unless otherwise indicated.

2.3 GYPSUM SHEATHING

A. Glass-Mat Gypsum Sheathing: ASTM C 1177/1177M.

1. Products: Subject to compliance with requirements, provide one of the following:

a. CertainTeed Corporation; GlasRoc.
b. Georgia-Pacific Building Products; Dens-Glass Gold.
c. National Gypsum Company; Gold Bond eXP Extended Exposure Sheathing.
d. Temple-Inland Building Products by Georgia-Pacific; GreenGlass Exterior Sheathing.
e. United States Gypsum Company; Securock.

2. Type and Thickness: Regular, 1/2 inch (13 mm) thick unless otherwise indicated.

2.4 COMPOSITE NAIL BASE INSULATED ROOF SHEATHING

A. Plywood-Surfaced, Polyisocyanurate-Foam Sheathing: ASTM C 1289, Type V with 5/8-inch thick CDX fire-treated plywood on one face.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Panels (hunterpanels.com); H-Shield NB.
2. Polyisocyanurate-Foam Thickness: +/- 3.5625 inches, overall thickness of +/- 4.1875 inches including 5/8" fire-treated plywood on face. R-value R-21.1.

2.5 COMPOSITE INSULATED WALL SHEATHING

A. Plywood-Surfaced, Polyisocyanurate-Foam Sheathing: ASTM C 1289, Type V with 3/4-inch thick CDX fire-treated plywood on one face.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Hunter Panels (hunterpanels.com); Xci Ply (Class A).
2. Polyisocyanurate-Foam Thickness: +/- 1.5 inches, overall thickness of +/- 2.225 inches including ¾" fire-treated plywood on face. R-value R-9.2.
3. Foam Core Fire Performance: Class A; maximum flame-spread and smoke-developed indexes of 25 and 250, respectively, per ASTM E 84.
4. Fire-Resistance Exterior Wall Assembly: composite insulated wall sheathing shall be a component of an overall wall assembly tested in accordance to NFPA 285.

2.6 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Provide fasteners of Type 304 stainless steel.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with the following:

1. "Fastening Schedule," in the ICC's International Building Code.
2. ICC-ES evaluation report for fastener.

3.2 GYPSUM SHEATHING INSTALLATION

A. Comply with GA-253 and with manufacturer's written instructions.

1. Fasten gypsum sheathing to cold-formed metal framing with screws.
2. Install panels with a 3/8-inch (9.5-mm) gap where non-load-bearing construction abuts structural elements.
3. Install panels with a 1/4-inch (6.4-mm) gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.

END OF SECTION