

**SECTION 06 16 63
CEMENTITIOUS SHEATHING**

SPEC WRITER NOTES:

1. Delete text between // _____ // not applicable to project. Edit remaining text to suit project.
2. Use this Section for exterior sheathing as a backup for ceramic tile, thin stone tile, and thin brick.
3. Fiberglass mat faced gypsum board sheathing is specified in Section 09 29 00, GYPSUM BOARD.
4. Coordinate with structural Section 05 40 00, COLD FORMED METAL FRAMING and show stud framing at 400 mm (16 inches), o.c. maximum. Also specify lateral bracing when wind loads exceed 1.26 kg/sq. m (30 lbs./sq. ft.), and as required for the project conditions.
5. Detail walls, joints with other materials, base edge, expansion and control joint conditions for each system. Show locations of expansion and control joints on drawings.
6. Verify framing is designed for deflection maximum 1/360, studs alone.
7. Verify framing is designed with 0.752 mm (0.0296 inch) thick (20 gage) or heavier steel framing with corrosion-resistant metal coating equivalent to G60 hot-dipped galvanized.
8. How is this assembly being waterproofed?

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cement board sheathing at exterior framed wall construction.

SPEC WRITER NOTE: Update applicable publications to current issue at time of project preparation.

1.2 APPLICABLE PUBLICATIONS

- A. Comply with references to extent specified in this Section.
- B. American National Standards Institute (ANSI):
 1. A118.9-10 - Cementitious Backer Units.
- C. ASTM International (ASTM):

1. C954-15 - Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness
2. C1002-14 - Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
3. C1325-14 - Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units.

1.3 SUBMITTALS

- A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:
 1. Description of each product.
 2. Installation instructions.
 3. Warranty.
- C. Samples:
 1. Cement Board: 200 mm by 200 mm (8 inches by 8 inches), minimum size.
 2. Fasteners: One of each type used.

1.4 DELIVERY AND STORAGE

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

1.5 STORAGE AND HANDLING

- A. Store products indoors in dry, weathertight facility.
- B. Protect products from damage during handling and construction operations.

1.6 WARRANTY

SPEC WRITER NOTE: Always retain construction warranty. FAR includes Contractor's one year labor and material warranty.

- A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

B. Manufacturer's Warranty: Warrant sheathing against material and manufacturing defects.

1. Warranty Period: 10 years.

PART 2 - PRODUCTS

2.1 PRODUCTS - GENERAL

A. Provide each product from one manufacturer.

B. Sustainable Construction Requirements:

SPEC WRITER NOTE:

1. Specify products containing greatest recycled content practicable to maximize material recovery. See EPA Comprehensive Procurement Guidelines (CPG) for guidance about individual products and available recycled content. Section 01 81 13 sets overall project recycled content requirements.

2. Cement board is noted for 14 to 97 percent recycled content depending on manufacturer.

1. Sheathing Recycled Content: // _____ // percent // post-consumer // total // recycled content, minimum. // Select products with recycled content to achieve overall Project recycled content requirement. //

2.2 SHEATHING

A. Cement Boards: Meeting ANSI A118.9 and ASTM C1325.

1. Thickness: // 13 mm (1/2 inch) // 16 mm (5/8 inch) //.

2. Width: 1219 mm (48 inches), minimum.

2.3 ACCESSORIES

A. Steel Drill Screws: Corrosion-resistant, self-drilling.

1. ASTM C1002, Type S for fastening to framing less than 0.8 mm (33 mils) thick.

2. ASTM C954 for fastening to framing 0.8 mm (33 mils) thick and greater.

B. Joint Reinforcement: Alkali resistant tape as recommended by sheathing manufacturer.

C. Bonding Material: As recommended by sheathing manufacturer.

D. Air Barrier: As specified in // Section 07 27 26, FLUID-APPLIED MEMBRANE AIR BARRIER, VAPOR PERMEABLE // Section 07 27 27, FLUID-APPLIED MEMBRANE AIR BARRIER, VAPOR RETARDING //.

SPEC WRITER NOTE: Include a reference to waterproof membrane when applicable.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine and verify substrate suitability for product installation.

SPEC WRITER NOTES: Include option when sheathing is installed at soffits.

- B. Protect existing construction and completed work from damage.
- C. Verify framing is plumb // and level // and in plane.
- D. Correct substrate deficiencies.

3.2 SHEATHING INSTALLATION

- A. Install products according to manufacturer's instructions.
 - 1. Secure units to framing members with screws spaced maximum 200 mm (8 inches) o.c. and not closer than 13 mm (1/2 inch) from edge of unit.
 - 2. Install screw heads without penetrating cement board surface.
 - 3. Install sheathing with 6 mm (1/4 inch) gap where sheathing abuts masonry or similar materials to prevent wicking of moisture.
 - 4. Install sheathing with 10 mm (3/8 inch) gap where non-load-bearing construction abuts structural elements or building expansion joints.
 - 5. Horizontal Installation: Abut ends of boards over centers of studs. Stagger end joints minimum one stud spacing for adjacent boards. Fasten boards at perimeter and within field of board to each stud.
 - 6. Vertical Installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Fasten boards at perimeter and with fin field of board to each stud.
 - 7. Apply bonding material to imbed tape and completely fill board joints, and gaps between each panel.

3.3 PROTECTION

- A. Remove loose or spalling joint finish. Patch areas missing joint finish.
- B. Replace broken or damaged boards.
- C. Protect boards from moisture using temporary coverings until finishes are applied.

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