

**SECTION 09 29 00
GYPSUM BOARD**

SPEC WRITER NOTES:

1. Use this section only for NCA projects.
2. Delete between //____// if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs. Detail all types of gypsum board construction.

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This section specifies installation and finishing of gypsum board.

1.2 RELATED WORK

- A. Installation of steel framing members for walls, partitions, furring, soffits, and ceilings: Section 05 40 00, COLD-FORMED METAL FRAMING, and Section 09 22 16, NON-STRUCTURAL METAL FRAMING.
- B. Thermal Insulation: Section 07 21 13, THERMAL INSULATION.
- C. Sealants: Section 07 92 00, JOINT SEALANTS.

1.3 TERMINOLOGY

- A. Definitions and description of terms to be in accordance with ASTM C11, C840, and as specified.

1.4 SUSTAINABILITY REQUIREMENTS

- A. Materials in this section may contribute towards contract compliance with sustainability requirements. See Section 01 81 11, SUSTAINABLE DESIGN REQUIREMENTS, for project // local/regional materials, // low-emitting materials, // recycled content, // certified wood // ____// requirements.
- B. Biobased Material: For products designated by the USDA's BioPreferred® program, provide products that meet or exceed USDA recommendations for biobased content, subject to the products compliance with performance requirements in this Section. For more information regarding the product categories covered by the BioPreferred® program, visit <http://www.biopreferred.gov>.
- C. Any gypsum wallboard panel products used on this project must have passed testing for moisture and mold-resistance.

1.5 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturer's Literature and Data:

- 1. Cornerbead and edge trim.
- 2. Finishing materials.
- 3. Gypsum board, each type.

C. Shop Drawings:

- 1. Typical gypsum board installation of all assemblies, showing corner details, edge trim details and the like.

D. Samples:

- 1. Cornerbead.
- 2. Edge trim.
- 3. Control joints.

1.6 DELIVERY, IDENTIFICATION, HANDLING AND STORAGE

- A. In accordance with the requirements of ASTM C840.

1.7 ENVIRONMENTAL CONDITIONS

- A. In accordance with the requirements of ASTM C840.

1.8 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

SPEC WRITER NOTES:

- 1. Remove reference citations that do not remain in Part 2 or Part 3 of edited specification.
- 2. Verify and make dates indicated for remaining citations the most current at date of submittal; determine changes from date indicated on the TIL download of the section and modify requirements impacted by the changes.

B. American Society for Testing and Materials (ASTM):

C11-13	Terminology Relating to Gypsum and Related Building Materials and Systems
C475/C475M-12	Joint Compound and Joint Tape for Finishing Gypsum Board
C840-11	Application and Finishing of Gypsum Board
C954-11	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

C1002-07	Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
C1047-10a	Accessories for Gypsum Wallboard and Gypsum Veneer Base
C1177/C1177M-08	Glass Mat Gypsum Substrate for Use as Sheathing
C1280-11	Application of Exterior Gypsum Panel Products for Use as Sheathing
C1325-08b	Fiber Mat Reinforced Cementitious Backer Unit
C1396/C1396M-13	Gypsum Board
C1658/C1658M	Glass Mat Gypsum Panels
D3273-12	Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber

PART 2 - PRODUCTS

SPEC WRITER NOTES:

1. Make material requirements agree with applicable requirements specified in the referenced Applicable Publications.

2.1 GYPSUM BOARD

- A. Gypsum Board (Typical) - Mold and Moisture-Resistant: ASTM C1396, (Type X,) 16 mm (5/8 inch) thick unless shown otherwise.
- B. Gypsum Backing Board - Mold and Moisture-Resistant: ASTM C1396, 16 mm (5/8 inch) thick.
- C. Cementitious Backing Board: ASTM C1325, use in showers.
- D. Glass-Mat-Faced Interior Panels: ASTM C1177, Type X, 16 mm (5/8 inch) thick and complying to the requirements of ASTM D3273 for Mold and Mildew resistance.
- E. Provide gypsum cores with a minimum of 95 percent post industrial recycled gypsum content. Provide paper facings with 100 percent post-consumer recycled paper content.

2.2 GYPSUM SHEATHING BOARD

- A. Provide panels complying with ASTM C1177 and ASTM C1396, Type X, water-resistant core, 16 mm (5/8 inch) thick.

2.3 ACCESSORIES

- A. ASTM C1047, except form of 0.39 mm (0.015 inch) thick zinc coated steel sheet or rigid PVC plastic.

2.4 FASTENERS

- A. ASTM C1002 and ASTM C840, except as otherwise specified.

- B. ASTM C954, for steel studs thicker than 0.04 mm (0.33 inch).
- C. For fire rated construction, type and size same as used in fire rating test.

SPEC WRITER NOTES:

- 1. Review USDA Biopreferred Categories for listed materials within the scope of the following paragraph and include additional requirements, unless justification for non-use exists.

2.5 FINISHING MATERIALS AND LAMINATING ADHESIVE

- A. ASTM C475 and ASTM C840.
- B. Provide material free of antifreeze, vinyl adhesives, preservatives and biocides; VOC content within limits of stated performance requirements.
- C. Joint Tape: Use cross-laminated, tapered edge, reinforced paper, or fiber glass mesh tape recommended by the manufacturer.

PART 3 - EXECUTION

SPEC WRITER NOTES:

- 1. Read ASTM C840, coordinate with project specification and drawing requirements.

3.1 GYPSUM BOARD HEIGHTS

- A. Extend gypsum board from floor to heights as follows, unless shown otherwise:
 - 1. Not less than 150 mm (6 inches) above suspended acoustical ceilings.
 - 2. At ceiling of suspended gypsum board ceilings.
 - 3. //At existing ceilings. //

3.2 INSTALLING GYPSUM BOARD

- A. Install gypsum board in accordance with ASTM C840, except as otherwise specified.
- B. Provide and install moisture and mold-resistant glass-mat-faced interior gypsum wallboard products with moisture-resistant surfaces complying with ASTM C1658 where shown and in high humidity and wet areas or locations which might be subject to moisture exposure during construction.
 - 1. High humidity and wet areas include, but not limited to, // wallboard installed at building perimeter, // any wallboard furred to concrete or masonry construction, // toilet rooms containing a shower // mechanical penthouses and mechanical spaces with steam, hot water or condensation generating equipment //.
- C. Ceilings:
 - 1. For single-ply construction, use perpendicular application.

2. For two-ply assemblies:
 - a. Use perpendicular application.
 - b. Apply face ply of gypsum board so that joints of face ply do not occur at joints of base ply with joints over framing members.

SPEC WRITER NOTES:

1. Show and clearly define locations of control joints.
2. Detail control joints.
3. See ASTM C840 for design criteria.

D. Install control joints in accordance with ASTM C840.

E. Accessories:

1. Install the following accessories in accordance with ASTM C1047.
 - a. Corner Beads.
 - b. Edge Trim (casing beads).

3.3 INSTALLING GYPSUM SHEATHING

- A. Comply with ASTM C1280; install sheathing vertically, with edges butted tight and ends occurring over firm bearing.
- B. Coordinate sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed exterior wall assembly.
- C. Do not bridge building expansion joints with sheathing; cut and space edges to match spacing of structural support elements.
- D. Seal sheathing joints according to sheathing manufacturer's written recommendations.
 1. Apply glass-fiber sheathing tape to glass-mat gypsum sheathing board joints, and apply and trowel silicone emulsion sealant to embed sealant in entire face of tape.
 2. Apply sealant to exposed fasteners with a trowel so fasteners are completely covered.
 3. Seal other penetrations and openings.

3.4 FINISHING OF GYPSUM BOARD

- A. Finish joints, edges, corners, and fastener heads in accordance with ASTM C840.
- B. Use Level 5 finish for all finished areas open to public view; level 2 finish in utility, maintenance and service areas and level 1 in plenums, attics and other concealed areas.
- C. Follow manufacturer's fire testing reports where fire resistant construction is shown on drawings.

3.5 REPAIRS

- A. After taping and finishing has been completed, and before decoration, repair all damaged and defective work, including non-decorated surfaces.
- B. Patch holes or openings 13 mm (1/2 inch) or less in diameter, or equivalent size, with a setting type finishing compound or patching plaster.
- C. Repair holes or openings over 13 mm (1/2 inch) diameter, or equivalent size, with 16 mm (5/8 inch) thick gypsum board secured in such a manner as to provide solid substrate equivalent to undamaged surface.
- D. Tape and refinish scratched, abraded or damaged finish surfaces including cracks and joints in non-decorated surface to provide fire protection equivalent to the fire rated construction.

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