

SECTION 09 29 00

GYPSUM BOARD
10/06

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

- ANSI A108.11 (1992) Interior Installation of Cementitious Backer Units
- ANSI/CTI A108/A118/A136.1 (2005) Specification for the Installation of Ceramic Tile

ASTM INTERNATIONAL (ASTM)

- ASTM C 1002 (2007) Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
- ASTM C 1047 (2005) Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base
- ASTM C 1396/C 1396M (2006a) Standard Specification for Gypsum Board
- ASTM C 36/C 36M (2003e1) Gypsum Wallboard
- ASTM C 475/C 475M (2002; R 2007) Joint Compound and Joint Tape for Finishing Gypsum Board
- ASTM C 630/C 630M (2003e1) Water-Resistant Gypsum Backing Board
- ASTM C 665 (2006) Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing
- ASTM C 840 (2007) Application and Finishing of Gypsum Board
- ASTM C 954 (2007) 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

ASTM D 226	(2006) Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
GYPSUM ASSOCIATION (GA)	
GA 214	(1996) Recommended Levels of Gypsum Board Finish
GA 216	(2004) Application and Finishing of Gypsum Board

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Gypsum Board

Cementitious backer units

Water-Resistant Gypsum Board

Joint Treatment Materials

Accessories

Submit for each type of gypsum board and for cementitious backer units.

SD-07 Certificates

Certify that gypsum board, water resistant gypsum board, cementitious backer units, and joint treating materials do not contain asbestos.

SD-08 Manufacturer's Instructions

Material Safety Data Sheets

SD-10 Operation and Maintenance Data

Manufacturer maintenance instructions

1.3 DELIVERY, STORAGE, AND HANDLING

1.3.1 Delivery

Deliver materials in the original packages, containers, or bundles with each bearing the brand name, applicable standard designation, and name of manufacturer, or supplier.

1.3.2 Storage

Keep materials dry by storing inside a sheltered building. Where necessary to store gypsum board and cementitious backer units outside, store off the ground, properly supported on a level platform, and protected from direct exposure to rain, snow, sunlight, and other extreme weather conditions. Provide adequate ventilation to prevent condensation. Store per manufacturer's recommendations for allowable temperature and humidity range. Do not store panels near materials that may offgas or emit harmful fumes, such as kerosene heaters, fresh paint, or adhesives.

1.3.3 Handling

Neatly stack gypsum board and cementitious backer units flat to prevent sagging or damage to the edges, ends, and surfaces.

1.4 ENVIRONMENTAL CONDITIONS

1.4.1 Temperature

Maintain a uniform temperature of not less than 50 degrees F in the structure for at least 48 hours prior to, during, and following the application of gypsum board, cementitious backer units, and joint treatment materials, or the bonding of adhesives.

1.4.2 Exposure to Weather

Protect gypsum board and cementitious backer unit products from direct exposure to rain, snow, sunlight, and other extreme weather conditions.

1.5 QUALIFICATIONS

Furnish type of gypsum board work specialized by the installer with a minimum of 3 years of documented successful experience.

PART 2 PRODUCTS

2.1 MATERIALS

Conform to specifications, standards and requirements specified. Provide gypsum board, water resistant gypsum board, cementitious backing units, and joint treating materials manufactured from asbestos free materials only. Submit [Material Safety Data Sheets](#) and [manufacturer maintenance instructions](#) for gypsum materials including adhesives.

2.1.1 Gypsum Board (GWB)

[ASTM C 36/C 36M](#) and [ASTM C 1396/C 1396M](#).

2.1.1.1 Type X (Special Fire-Resistant)

48 inch wide, 5/8 inch thick, tapered edges.

2.1.2 Regular [Water-Resistant Gypsum Board](#) (WRB)

[ASTM C 630/C 630M](#)

2.1.2.1 Type X (Special Fire-Resistant)

48 inch wide, 5/8 inch thick, tapered edges.

2.1.3 Cementitious Backer Units (CBU)

ANSI/CTI A108/A118/A136.1.

2.1.4 Joint Treatment Materials

ASTM C 475/C 475M. Use all purpose joint and texturing compound containing inert fillers and natural binders, including lime compound. Pre-mixed compounds shall be free of antifreeze, vinyl adhesives, preservatives, biocides and other slow releasing compounds.

2.1.4.1 Embedding Compound

Specifically formulated and manufactured for use in embedding tape at gypsum board joints and compatible with tape, substrate and fasteners.

2.1.4.2 Finishing or Topping Compound

Specifically formulated and manufactured for use as a finishing compound.

2.1.4.3 All-Purpose Compound

Specifically formulated and manufactured to serve as both a taping and a finishing compound and compatible with tape, substrate and fasteners.

2.1.4.4 Setting or Hardening Type Compound

Specifically formulated and manufactured for use with fiber glass mesh tape.

2.1.4.5 Joint Tape

Use cross-laminated or tapered edge tape recommended by the manufacturer. Paper and fiberglass joint tape are not permitted.

2.1.5 Fasteners

2.1.5.1 Screws

ASTM C 1002, Type "G", Type "S" or Type "W" steel drill screws for fastening gypsum board to steel framing members less than 0.033 inch thick. ASTM C 954 steel drill screws for fastening gypsum board to steel framing members 0.033 to 0.112 inch thick. Provide cementitious backer unit screws with a polymer coating.

2.1.6 Metal Framing Members

As Specified in section 09 22 00, Metal Support Assemblies.

2.1.7 Accessories

ASTM C 1047. Fabricate from corrosion protected steel or plastic designed for intended use. Accessories manufactured with paper flanges are not acceptable. Flanges shall be free of dirt, grease, and other materials that may adversely affect bond of joint treatment. Provide prefinished or job decorated materials.

2.1.7.1 Corner Beads

1-14 inches by 1-1/4 inches.

2.1.7.2 Reveal Molding

Provide metal trim shape as specified. Material: Extruded aluminum 6063 T5 with Kynar factory finish; color black.

- a. Z-Shaped Reveal Molding: Reveal depth of 5/8-inch and reveal width of 1/2-inch and flange for tape and spackle.
- b. F-Shaped Reveal Molding: Reveal depth 5/8-inch and reveal width of 1/2-inch and flange for tape and spackle.
- c. W-Shaped Reveal Molding: Reveal depth 5/8-inch and reveal width of 1/2-inch and flange for tape and spackle.

2.1.8 Sound Attenuation Blankets

ASTM C 665, Type I (no facing), 3 inches thick.

2.1.9 Asphalt Impregnated Building Felt

Conforming to ASTM D 226 Type 1 (No. 15) for asphalt impregnated building felt.

2.1.10 Water

Provide clean, fresh, and potable water.

PART 3 EXECUTION

3.1 EXAMINATION

3.1.1 Framing and Furring

Verify that framing and furring are securely attached and of sizes and spacing to provide a suitable substrate to receive gypsum board and cementitious backer units. Verify that all blocking, headers and supports are in place to support plumbing fixtures and to receive soap dishes, grab bars, towel racks, and similar items. Do not proceed with work until framing and furring are acceptable for application of gypsum board and cementitious backer units.

3.2 APPLICATION OF GYPSUM BOARD

Apply gypsum board to framing and furring members in accordance with ASTM C 840 or GA 216 and the requirements specified. Apply gypsum board with separate panels in moderate contact; do not force in place. Stagger end joints of adjoining panels. Neatly fit abutting end and edge joints. Use gypsum board of maximum practical length; select panel sizes to minimize waste. Cut out gypsum board to make neat, close, and tight joints around openings. In vertical application of gypsum board, provide panels in lengths required to reach full height of vertical surfaces in one continuous piece. Lay out panels to minimize waste; reuse cutoffs whenever feasible. Surfaces of gypsum board and substrate members may not be bonded

together with an adhesive. Treat edges of cutouts for plumbing pipes, screwheads, and joints with water-resistant compound as recommended by the gypsum board manufacturer. Provide type of gypsum board for use in each system specified herein as indicated.

3.2.1 Application of Gypsum Board to Steel Framing and Furring

Apply in accordance with [ASTM C 840](#), System VIII or [GA 216](#).

3.2.2 Control Joints

Install expansion and contraction joints in ceilings and walls in accordance with [ASTM C 840](#), System XIII or [GA 216](#).

3.3 APPLICATION OF CEMENTITIOUS BACKER UNITS

3.3.1 Application

In wet areas (including shower enclosures) and in accordance with drawings, apply cementitious backer units in accordance with [ANSI A108.11](#). Place a 15 lb asphalt impregnated, continuous felt paper membrane behind cementitious backer units, between backer units and studs. Place membrane with a minimum 6 inch overlap of sheets laid shingle style.

3.3.2 Joint Treatment

[ANSI A108.11](#).

3.4 INSTALLATION OF REVEAL MOLDING

Install at locations shown on drawings and in accordance with manufacturer's instructions.

3.5 INSTALLATION OF SOUND ATTENUATION BLANKETS

Install attenuation blankets as shown in Wall Types on Drawings. Seal perimeter edges of gypsum board, joints around penetrations, and other joints with acoustical sealant as specified in [07 92 00](#), Joint Sealants.

3.6 FINISHING OF GYPSUM BOARD

Tape and finish gypsum board in accordance with [ASTM C 840](#), [GA 214](#) and [GA 216](#). Finish plenum areas above ceilings to Level 1 in accordance with [GA 214](#). Finish water resistant gypsum board, [ASTM C 630/C 630M](#), to receive ceramic tile to Level 2 in accordance with [GA 214](#). Finish walls and ceilings to receive a heavy-grade wall covering or heavy textured finish before painting to Level 3 in accordance with [GA 214](#). Finish walls and ceilings without critical lighting to receive flat paints, light textures, or wall coverings to Level 4 in accordance with [GA 214](#). Finish all gypsum board walls, partitions and ceilings to Level 5 in accordance with [GA 214](#). Provide joint, fastener depression, and corner treatment. Tool joints as smoothly as possible to minimize sanding and dust. Do not use fiber glass mesh tape with conventional drying type joint compounds; use setting or hardening type compounds only. Provide treatment for water-resistant gypsum board as recommended by the gypsum board manufacturer. Protect workers, building occupants, and HVAC systems from gypsum dust.

3.6.1 Uniform Surface

Wherever gypsum board is to receive eggshell, semigloss or gloss paint finish, or where severe, up or down lighting conditions occur, finish gypsum wall surface in accordance to GA 214 Level 5. In accordance with GA 214 Level 5, apply a thin skim coat of joint compound to the entire gypsum board surface, after the two-coat joint and fastener treatment is complete and dry.

3.7 SEALING

Seal openings around pipes, fixtures, and other items projecting through gypsum board and cementitious backer units as specified in Section 07 92 00 JOINT SEALANTS. Apply material with exposed surface flush with gypsum board or cementitious backer units.

3.8 PATCHING

Patch surface defects in gypsum board to a smooth, uniform appearance, ready to receive finishes.

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