

**SECTION 09210
GYPSUM BOARD ASSEMBLIES**

PART 1 - GENERAL

1.1 SUMMARY

- .1 Provide gypsum wallboard assemblies, plain and fire rated, to walls and ceilings.
- .2 Provide acoustic caulking, tape, fire-taping, and metal trim.
- .3 Provide finishing of gypsum wallboard, including taping, filling, and sanding.
- .4 Provide special sheathing tile backer board.

1.2 RELATED SECTIONS

- .1 06100 Rough Carpentry.
- .2 07290 Weather Restrictive Barrier.
- .3 07840 Firestopping.
- .4 07900 Joint Sealers.

1.3 REFERENCES

- .1 ASTM C36/C36M-01, Standard Specification for Gypsum Wallboard.
- .2 ASTM C630/C630M-01, Standard Specification for Water-Resistant Gypsum Backing Board.
- .3 ASTM E90-02, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- .4 ASTM D1037-99, Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
- .5 CAN/CSA A82.27-M91, Gypsum Board.
- .6 CAN/CSA-A82.31-M1980 Gypsum Board Application.
- .7 CAN/ULC S 702-97, Thermal Insulation, Mineral Fibre, for Buildings.
- .8 Association of Wall and Ceiling Contractors of B.C Specifications Standard Manual 1992 edition.
- .9 CAN/CGSB-19.21- M87

1.4 SYSTEM DESCRIPTION

- .1 Wall, Floor and Ceiling Assemblies: Minimum rating of STC 55 when tested in accordance with ASTM E90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- .2 Where fire and sound rated gypsum wallboard assemblies are indicated, construct to applicable BC Building Code, NBC, ULC, WHI or other pre-approved testing agency construction details indicated.

1.5 SUBMITTALS

- .1 Submit in accordance with Division 1 Submittal Procedures.
- .2 Product Data: Include installation instructions for spray textured finish.
- .3 Samples: Provide 3 8" x 10" samples of spray textured finishes selected by Consultant.

1.6 QUALITY ASSURANCE

- .1 Work of this section shall conform to the B.C. Wall and Ceilings (BCWC) Specifications Standard Manual current edition.
- .2 Use experienced installers.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver and store materials undamaged in original wrappings or containers with the manufacturer's labels and seals intact.

- .2 Ship corner and casing beads in rigid containers and protect from damage and dampness.
- .3 Store wallboard flat, off the floor, protected from damage by dampness, weather or construction activities.
- .4 Keep cementitious materials dry and away from damp surfaces.

PART 2 - PRODUCTS

2.1 GYPSUM WALLBOARD

- .1 Gypsum Board: Standard, type X, or type C to suit wall and ceiling types and provide required fire rating and sound isolation 15 mm (5/8") and 12 mm 1/2" thicknesses in single or multiple layers. 4'-0" wide, in lengths as long as practical to minimize end joints. Type "X" and "C": Underwriter labeled Fireguard by Georgia Pacific or approved equivalent meeting CAN/CSA-A82.27-M91 and ASTM C36/C36M.
- .2 Tapes and Fillers (for Drywall): From same manufacturers or approved for use with selected gypsum board.
- .3 Water-resistant Gypsum Tile Backer Board in Bathing Room: To ASTM C630/C 630M, 13 mm (1/2") thick standard water resistant board with siliconized gypsum core and faces bonded to an inorganic fibreglass mat wrapping treated with one face coated with a heat cured copolymer water and vapour retardant coating. Fire rated as required. Den-Shield Tile backer board by Georgia-Pacific Corporation.
- .4 Tape: Spark perforated paper, 50 mm (2") wide reinforcing tape.
- .5 Joint Filler: Low volatile organic compound (VOC) type casein base, water mixed, slow setting, non-combustible paste for laminations and joint treatment.
- .6 Joint Treatment, Filler, and Topping Cement: Low VOC gyproc joint filler, premixed purpose-made water mixed, low shrinkage, non-combustible for taping and filling joints, screw heads, corner and casing beads. Special mixes for filling and finishing.

2.2 ACCESSORIES

- .1 Spray Texture Ceiling Finish: Fine to medium finish, polystyrene free, paintable, Spraytex or approved alternative.
- .2 Thermal and Acoustic Insulation: To CSA CAN/ULC S 702-97.
- .3 Acoustical Sealant: In accordance with Section 07900 Joint Sealants.
- .4 Corner Bead: Use tape-on corners with an abrasion resistant finish.
- .5 Screws: Lengths as required to suit applications, self-tapping corrosion resistant drywall screws for metal support systems and wood type for wood construction. Use drywall screws for fastening gypsum wallboard in accordance with AWCC Manual.
- .6 Corner and Casing Beads: Suit requirements of drywall conditions. Corner beads, and comerite to be fabricated from or galvanized sheet steel, not less than 26 US gauge, or P.V.C. type as manufacture by Plastic Components Inc. with perforated or expanded metal flanges. Stops and corner beads to be square. Provide prefinished beads at window and gypsum board junctions.
- .7 Access Panels: Locate only where approved by the Consultant. Flush door type, screwdriver operated cam locks with locking cylinder option, concealed hinges, plain or fire rated as required with integral frame for installation after wall finish is applied, complete with fixing screws and shields to suit wall type. Finishes and types as follows:
 - .1 Drywall Standard: Prime coated for painting with walls.
 - .2 Fire Rated: Suit wall rating.
- .8 Compressible Foam Gasket: Use gasket recommended by gypsum board supplier to ensure an airtight seal to framing.
- .9 Joint Sealers: Refer to Section 07900 Joint Sealers

2.3 ACOUSTIC CONTROL COMPONENTS

- .1 Acoustic Caulking: Synthetic rubber acoustic sealant meeting CAN/CGSB-19.21- M87. Tremco acoustic sealant or approved equivalent.

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Inspect surfaces to receive gypsum assemblies prior to commencement of the work of this section, with Installer present. Correct unsatisfactory conditions. Starting work shall imply acceptance of conditions.
- .2 Protect adjoining surfaces from damage resulting from work of this section.
- .3 Review location of access panels with Consultant prior to installation.
- .4 Do not close in ceiling and soffit spaces or walls until all services have been completed, tested and approved.
- .5 Seal underside of wood stud plates with acoustical sealant in accordance with Section 07900 Joint Sealants, and as required by the Specifications for the rated assembly. Seal around penetrations in sound-rated walls including joints between dissimilar construction.

3.2 INSTALLATION - GENERAL

- .1 Prior to commencement of work of this section, carefully inspect the installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
- .2 Do not apply drywall unless the work which is to receive it and site conditions are satisfactory and temperature of building is 12°C to 21°C maximum for 72 hours prior, during, and after application.
- .3 Avoid concentrated or irregular heat during drying. Provide ventilation to dry gypsum drywall fillers properly.
- .4 Partitioning systems go to underside of structural or beam elements unless specifically detailed otherwise.

3.3 INSTALLATION - GYPSUM BOARD WALLS AND PARTITIONS

- .1 GWB generally 12mm (1/2") or 15 mm (5/8") thicknesses, Type X, single and double layer applications.
- .2 Erect gypsum wallboard using mechanics skilled in this trade, in strict accordance with the manufacturer's directions, to requirements of CAN/CSA-A82.31-M1980.
- .3 Apply at right angles to studs, or vertically with joints located over studs or furring members for fire-rated assemblies, butting edges to moderate contact in as long lengths of board as practical to minimize end joints.
- .4 Stagger end joints and support on framing members, space Type S screws fasteners at 12" o.c. starting at the centre of the sheet and working toward the ends.
- .5 Maintain a minimum of 3/8" from edges and ends of panels to screws. Apply trim in accordance with the manufacturer's recommendations.
- .6 Special Sheathing Board: Install sheathing board in conformance with manufacturer's printed instructions and as a minimum standard to installation of gypsum wall sheathing specifications of BCWC Manual and as specified herein for gypsum wall sheathing. Taping and filling of joints shall be in accordance with the manufacturer's recommendations using special manufacturer's recommended tapes.
- .7 Compressible Foam Tape: Install at locations indicated to ensure airtightness of drywall seal to framing. Coordinate to ensure satisfactory installation.
- .8 Seal gypsum board to other members where indicated to ensure airtightness of drywall.

3.4 INSTALLATION - CEILINGS

- .1 Apply gypsum panels of maximum practical length with long dimension at right angles to joists. Position end joints over channel web and stagger in adjacent rows. Fur ends and edges closely, but not forced together. Fasten panels with Type S screws spaced 300 mm (12") on center in field of panels and along abutting ends and edges.

3.5 SPRAY TEXTURED FINISH

- .1 Apply spray texture finish in accordance with manufacturer's printed instructions.

3.6 INSTALLATION - ACOUSTIC CAULKING

- .1 Install to complete periphery of walls. Surfaces shall be clean, free of dust and shall be cleaned with compressed air or vacuums immediately prior to installation of caulking.

- .2 Seal perimeter joints between partitions and pipes and ducts that pass through drywall partitions, with sealant as specified.

3.7 INSTALLATION - ACCESSORIES

- .1 Corner and Casing Bead:
 - .1 Select to suit GWB requirements and details. Install as detailed to reveals, external angles or corners and junctions where drywall abuts other materials and to create special reveals as detailed on the drawings.
 - .2 Installation shall be in strict accordance with the manufacturer's instructions.
- .2 Access Panels: Install in locations as required to provide access to mechanical controls (dampers and valves). Coordinate finish and fire rating to suit wall types.

3.8 FINISHING

- .1 Finish gypsum wallboard in accordance with Section 9.6 - Part 3 Item 12.2 of the AWCC Specifications Standards Manual and as follows:
 - .1 Level 1 Finish: Use this finish in areas where the assembly will be completely concealed from view such as in ceiling spaces and behind solid wall and ceiling finishes.
 - .2 Level 3 Finish: Use this finish in areas that will receive a spray texture finish.
 - .3 Level 4 Finish: Use this finish in areas that will receive a flat GL1 or eggshell GL3 paint finish and remaining areas.
 - .4 Level 5 Finish: Use this finish in areas that will receive semigloss or gloss, GL3 to GL5.

3.9 CONTROL JOINTS

- .1 Construct control joints of two back-to back casing beads set in gypsum board facing and supported independently on both sides of joint.
- .2 Provide continuous polyethylene dust barrier behind and across control joints.
- .3 Locate control joints at changes in substrate construction and at approximately 30'-0" spacing or as indicated on drawings.
- .4 Install control joints straight and true.

3.10 CLEANING AND PROTECTION

- .1 Protect the work of other trades from damage resulting from the work of this section.
- .2 Promptly as work proceeds and at completion, clean up and remove from the premises and the project site rubbish and surplus materials resulting from work of this section.

END OF SECTION