

SECTION 06 16 43

GYPSUM SHEATHING

THIS SECTION IS WRITTEN IN CSI 3-PART FORMAT AND IN CSI PAGE FORMAT; THE PROJECT NAME/NUMBER/DATE AND SECTION TITLE IN THE FOOTER ARE OPTIONAL. NOTES TO THE SPECIFIER, SUCH AS THIS, MUST BE DELETED FROM THE FINAL SPECIFICATION.

IT IS ASSUMED THAT THE GENERAL CONDITIONS BEING USED ARE AIA A201-1997.

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Fiberglass-mat faced, moisture and mold resistant gypsum sheathing.

EDIT LIST BELOW TO CONFORM TO PROJECT REQUIREMENTS. VERIFY SECTION NUMBERS AND TITLES.

- B. Related Sections:
1. Section 05 41 00 Structural Metal Stud Framing.
 2. Section 06 10 00 Rough Carpentry.
 3. Section 09 21 16 Gypsum Board Assemblies.

IF THE PROJECT INCLUDES ALLOWANCES OR ALTERNATES OR UNIT PRICES, RETAIN PARAGRAPHS BELOW AND COORDINATE WITH DIVISION 01.

C. Allowances:

D. Unit Prices:

E. Alternates:

1.02 REFERENCES

- A. ASTM International (ASTM):
1. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel

Products.

2. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
3. ASTM C1002 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.
4. ASTM C1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.
5. ASTM C1280 Standard Specification for Application of Gypsum Sheathing.
6. ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.
7. ASTM D6329 Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers.
8. ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
9. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
10. ASTM C1396 Standard Specification for Gypsum Board
11. ASTM E 136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
12. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials

- B. Gypsum Association (GA): GA-253 Application of Gypsum Sheathing.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions for each product specified.

1.04 WARRANTY

- A. Provide products that offer twelve months of coverage against in-place exposure damage (delamination, deterioration and decay) commencing with the date of installation of the product in such structure.
- B. Manufacturer's Warranty:
1. Five years against manufacturing defects from the date of purchase of the product for installation
 2. 12 years against manufacturing defects when used as a substrate in

architecturally specified EIFS.

THIS GUIDE SPEC WAS WRITTEN TO PROVIDE THREE EDITING OPTIONS: 1) PROPRIETARY, 2) GENERIC, OR 3) A COMBINATION OF THE TWO.

PART 2 PRODUCTS

IF PROPRIETARY PRODUCT NAMES ARE INCLUDED IN THE "MATERIALS" ARTICLE BELOW, DELETE THIS ARTICLE ALTOGETHER. IF A PROPRIETARY SPECIFICATION IS REQUIRED, RETAIN THIS ARTICLE AND DELETE THE "MATERIALS" ARTICLE.

2.01 MANUFACTURERS

EDIT LIST BELOW TO CONFORM TO PROJECT REQUIREMENTS. IF OTHER MANUFACTURERS ARE BEING ADDED TO THIS SECTION, ADD LISTINGS OF THEIR PROPRIETARY PRODUCT NAMES.

- A. Georgia-Pacific Gypsum LLC:
 - 1. Fiberglass-Mat Faced Gypsum Sheathing: DensGlass Sheathing.
 - 2. Fiberglass-Mat Faced Gypsum Sheathing, Type X for Fire Rated Designs: DensGlass Fireguard Sheathing.

B.

C.

THIS ARTICLE INCLUDES GENERIC DESCRIPTIONS OF GYPSUM BOARD SHEATHING; THE NAMES OF THE CORRESPONDING GEORGIA-PACIFIC GYPSUM PRODUCTS ARE INCLUDED AS ACCEPTABLE PRODUCTS. IF THIS SECTION IS BEING EDITED TO BE GENERIC, THESE PRODUCT NAMES SHOULD BE DELETED.

IF OTHER MANUFACTURERS ARE BEING ADDED TO THIS SECTION, 1) ADD THE PROPRIETARY PRODUCT NAMES OF THOSE MANUFACTURERS, OR 2) IF PROPRIETARY NAMES ARE LISTED IN THE "MANUFACTURERS" ARTICLE ABOVE, DELETE THEM FROM THIS ARTICLE ALTOGETHER.

2.02 MATERIALS

- A. Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177:
 - 1. Thickness: 1/2 inch.

2. Width: 4 feet.
3. Length: [8 feet] [9 feet] [10 feet].
4. Weight: 1.9 lb/sq. ft.
5. Edges: Square.
6. Surfacing: Fiberglass mat on face, back, and long edges.
7. Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 540 pounds per square foot, dry.
8. Flexural Strength, Parallel (ASTM C473): 80 lbf, parallel.
9. Humidified Deflection (ASTM C1177): Not more than 2/8 inch.
10. Permeance (ASTM E96): Not less than 23 perms.
11. R-Value (ASTM C518): 0.56.
12. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
13. Microbial Resistance (ASTM D6329, UL Environmental GREENGUARD 3-week protocol): Will not support microbial growth.
14. Acceptable Products:
 - a. 1/2 inch DensGlass Sheathing, Georgia-Pacific Gypsum LLC.
 - b.
 - c.

B. Fire-Rated Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177, Type X:

1. Thickness: 5/8 inch.
2. Width: 4 feet.
3. Length: [8 feet] [9 feet] [10 feet].
4. Weight: 2.5 lb/sq. ft.
5. Edges: Square.
6. Surfacing: Fiberglass mat on face, back, and long edges.
7. Racking Strength (Ultimate, not design value) (ASTM E72): Not less than 654 pounds per square foot, dry.
8. Flexural Strength, Parallel (ASTM C1177): 100 lbf, parallel.
9. Humidified Deflection (ASTM C1177): Not more than 1/8 inch.
10. Permeance (ASTM E96): Not less than 17 perms.
11. R-Value (ASTM C518): 0.67.
12. Mold Resistance (ASTM D3273): 10, in a test as manufactured.
13. Microbial Resistance (ASTM D6329, UL Environmental GREENGUARD 3-week protocol): Will not support microbial growth.
14. Acceptable Products:
 - a. 5/8 inch DensGlass Fireguard Sheathing, Georgia-Pacific Gypsum LLC.
 - b.
 - c.

2.03 ACCESSORIES

- A. Screws: ASTM C1002, corrosion resistant treated.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verification of Conditions:

1. Inspection: Verify that project conditions and substrates are acceptable, to the installer, to begin installation of work of this section.

3.02 INSTALLATION

- #### A. General: In accordance with GA-253, ASTM C1280 and the manufacturer's recommendations.

IF OTHER MANUFACTURERS WERE ADDED IN PART 2,
REFERENCE THEIR INSTALLATION RECOMMENDATIONS
BELOW BY TITLE.

1. Manufacturer's Recommendations:

- a. Current "Product Catalog", Georgia-Pacific Gypsum.
- b.
- c.

3.03 PROTECTION

REVISE BELOW IF OTHER THAN AIA GENERAL CONDITIONS
ARE USED.

- #### A. Protect gypsum board installations from damage and deterioration until date of Substantial Completion.

END OF SECTION 06 16 43