

SECTION 06 16 43 – GYPSUM SHEATHING

PART I - GENERAL

I.01 SUMMARY

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

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.

I.02 REFERENCES

A. ASTM International (ASTM):

1. ASTM C473 Standard Test Methods for Physical Testing of Gypsum Panel
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

I.03 SUBMITTALS

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

I.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: Five years against manufacturing defects from the date of purchase of the product for installation

PRODUCTS

MANUFACTURERS

- 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.
- 3. Alternates are considered when proven to be of equal performance.

I.1 MATERIALS

- A. Fiberglass-Mat Faced Gypsum Sheathing: ASTM C1177:

- 1. Thickness: 1/2 inch. Project Name/Number/Date 06 16 43-4 Gypsum Sheathing
- 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): I0, 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. 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): I0, 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.

1.3 ACCESSORIES

A. Screws: ASTM C1002, corrosion resistant treated.

2.1 EXECUTION

2.01 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.

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

1. Manufacturer's Recommendations: a. Current "Product Catalog", Georgia-Pacific Gypsum.

2. Protect gypsum board installations from damage and deterioration until date of substantial completion.

END OF SECTION 057100