

## SECTION 09235

### Glass Fiber Reinforced Gypsum Fabrications

# STROMBERG

Architectural Products Inc.

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

- A. Glass fiber reinforced gypsum fabrications as indicated on the drawings.

### 1.2 RELATED SECTIONS

- A. Section 03490 - Glass Fiber Reinforced Concrete.
- B. Section 04720 - Cast Stone.
- C. Section 05500 - Metal Fabrications: Supplementary supports for large items.
- D. Section 06100 - Rough Carpentry: Supplementary supports for large items.
- E. Section 06610 - Glass Fiber Reinforced Plastic Fabrications.
- F. Section 09900 - Paints and Coatings: Field painting and sealing prior to painting.

### 1.3 REFERENCES

- A. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 1999.
- B. ASTM D 256 - Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics; 1997.
- C. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics; 1999.
- D. ASTM D 785 - Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials; 1998.
- E. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials; 1999.
- F. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.

### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including dimensions, finishes, storage and handling requirements and recommendations, and installation recommendations.

- C. Shop Drawings: For custom items, provide drawings showing dimensions, layout, joints, details, and interface with adjacent work; include field measured dimensions of the spaces where items are to be installed, if critical to proper installation.
- D. Samples: For each custom finish specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Transport, lift, and handle units with care, avoiding excessive stress and preventing damage; use appropriate equipment.
- B. Store products in manufacturer's unopened packaging until ready for installation, in a clean dry area protected from weather, moisture and damage; store units upright and not stacked unless permitted by manufacturer.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Stromberg Architectural Products Inc; PO Box 8036, I-30 West, 4400 Oneal, Greenville, TX 75404. ASD. Tel: (903) 454-0904. Fax: (903) 454-3642. Email: sales@strombergarchitectural.com. www.strombergarchitectural.com.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

### 2.2 MATERIALS

- A. Glass Fiber Reinforced Gypsum Fabrications: High density gypsum reinforced with continuous filament glass fiber mat and structural reinforcing as required.
  - 1. Glass Content: 5 to 6 percent by weight.
  - 2. Density: 103 to 112 pcf (1650 to 1795 kg/cu m).
  - 3. Shell Thickness: 1/8 to 3/16 inch (3 to 5 mm), nominal.
  - 4. Flame Spread Index: 0, when tested in accordance with ASTM E 84.
  - 5. Flexural Strength: 3200 to 4000 psi (22 to 27.5 MPa), when tested in accordance with ASTM D 790.
  - 6. Modulus of Elasticity: 2.1 to 2.2 x 10<sup>5</sup> psi (1450 to 1515 MPa), when tested in accordance with ASTM D 790.
  - 7. Tensile Strength: 1200 to 1400 psi (8.3 to 9.6 MPa)), when tested in accordance with ASTM D 638.
  - 8. Impact Strength: 8.0 to 8.8 ft lb/sq in (13 to 14.4 J/sq mm), when tested in accordance with ASTM D 256.
  - 9. Hardness: M 72, ), when tested in accordance with ASTM D 785, Rockwell.
  - 10. Variation from Dimensions Indicated on Drawings: Plus and minus 1/8 inch (3 mm), maximum.
  - 11. Variation from Plane Along Edge or Surface: Plus and minus 1/16 inch per linear foot (1.5 mm in 300 mm), maximum.
  - 12. Outside Corner Radius: 1/16 inch to 1/8 inch (1.5 to 3 mm).
  - 13. Draft Angle: 3 degrees, minimum, on returns, setbacks, reveals, and grooves.
  - 14. Items Too Large or Heavy to be Adhesively Installed: Provide concealed anchorage points for plaster type wire anchors.

- B. Joint Cement: Liquid Nail, or equivalent.
- C. Joint Tape and Compound: Types recommended for gypsum wallboard work.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed; verify that substrates are plumb and true.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Check field dimensions before beginning installation. If dimensions vary too much from design dimensions for proper installation, notify Architect and wait for instructions before beginning installation.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Install supplementary temporary and permanent supports as required for proper installation.

### 3.3 INSTALLATION

- A. Install in accordance with applicable code and manufacturer's recommendations, plumb and true to line; shim where necessary.
- B. Coordinate work with related gypsum wallboard work.
- C. Join pieces with cemented butt joints except at control and expansion joints.
- D. Provide control joints at not more than 35 feet (10.5 m) on center if not indicated on drawings.
- E. Provide expansion joints where moving joints in substrate occur.
- F. Finish joints the same as specified for adjacent gypsum board work in Section 09260.
- G. Finish joints and surfaces as required for Level 5 in ASTM C 840.

### 3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION