

SECTION 06600

Glass Fiber Reinforced Stone

STROMBERG

Architectural Products Inc.

PART 1 GENERAL

1.1 SECTION INCLUDES

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

1.2 RELATED SECTIONS

- A. Section 04720 - Cast Stone.
- B. Section 05500 - Metal Fabrications: Supplementary supports for large items.
- C. Section 06100 - Rough Carpentry: Supplementary supports for large items.
- D. Section 06610 - Glass Fiber Reinforced Plastic Fabrications.
- E. Section 09235 - Glass Fiber Reinforced Gypsum Fabrications.
- F. Section 09900 - Paints and Coatings: Field painting and sealing prior to painting.

1.3 REFERENCES

- A. ASTM C 150 - Standard Specification for Portland Cement; 1999a.
- B. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.
- C. ASTM G 23 - Standard Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials; 1996.

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 QUALITY ASSURANCE

- A. Installer Qualifications: Regularly engaged and experienced in the installation of glass fiber reinforced stone units.

1.6 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 Stone Fabrications: High density polymer, crushed stone and/or silica sand, reinforced with chopped glass fiber mat and structural reinforcing as required.
 - 1. Color: As selected from manufacturer's selection.
 - 2. Color: To match Architect's sample.
 - 3. Shell Thickness: 1/8 to 1/2 inch, nominal.
 - 4. Surface Burning Characteristics: Flame spread index of less than 25 (class A), smoke developed index of less than 450, when tested in accordance with ASTM E 84.
 - 5. Flexural Strength: 20000 psi (138 MPa), when tested in accordance with ASTM D 790.
 - 6. Modulus of Elasticity: 0.9×10^6 psi (6200 MPa), when tested in accordance with ASTM D 790.
 - 7. Tensile Strength: 12000 psi (83 MPa), when tested in accordance with ASTM D 638.
 - 8. Compressive Strength: 17000 psi (117 MPa), when tested in accordance with ASTM D 695.
 - 9. Bearing Strength: 9000 psi (62 MPa), when tested in accordance with ASTM D 638.
 - 10. Thermal Expansion Coefficient: 10×10^{-6} per degree F (5.56×10^{-6} per degree C).
 - 11. Specific Gravity: 1.5.
 - 12. Variation in Thickness From Nominal: Minus 1/16 inch (1.5 mm), plus 1/4 inch (6 mm).
 - 13. Variation from Dimensions Indicated on Drawings: Plus and minus 1/8 inch (3 mm), maximum.
 - 14. Variation from Square: Plus and minus 1/4 inch (3 mm), maximum.
 - 15. Variation of Hardware From Intended Location: Plus and minus 1/4 inch (6 mm), maximum.
 - 16. Provide concealed reinforced anchorage points for anchors of type recommended by manufacturer.

17. Mark each unit with permanent serial number coordinated with shop drawing designators.
18. Cure and clean prior to shipment; remove material that may be toxic to plant or animal life or incompatible with adjacent building materials.
19. Outside Corner Radius: 1/16 inch to 1/8 inch (1.5 to 3 mm).
20. Draft Angle: 3 degrees, minimum, on returns, setbacks, reveals, and grooves.

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. Provide control joints at not more than 35 feet (10.5 m) on center if not indicated on drawings.
- C. Provide expansion joints where moving joints in substrate occur.
- D. Patch exposed anchor points to match color and texture of unit.

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