Light-Cast™ Cast Stone Fireplace Surrounds

Glass Fiber Reinforced Concrete (GFRC) Fireplaces
Architectural Specifications

SECTION 03490

PART 1 GENERAL

1.1 Description

A. Glass fiber reinforced concrete (GFRC) fireplaces with EPS backing as indicated on the drawings.

1.2 Submittals

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product selected. Include dimensions, finish, storage and handling requirements, and installation instructions.

C. Shop Drawings: Provide drawings showing dimensions, layout, joints, details, and interface with adjacent work. Include field measurements of the spaces where product(s) are to be installed if vital to proper installation.

D. Samples: For each custom finish specified, provide 2 samples representing the actual product, color, and patterns.

1.3 Quality Assurance

A. Manufacturer: Obtain GFRC fireplace(s) as manufactured by a company that specializes in the manufacture of GFRC fireplace(s).

B. Provide a list of projects or photographs of actual projects that are comparable in size, scope, and complexity.

C. Provide verification that fireplace meets or exceeds products specified.

D. Installer Qualifications: Consistently engaged and experienced in the installation of GFRC or cast stone products.

1.4 Delivery, Storage, and Handling

A. Transport, move, and handle products with care. Avoid stress and prevent damage with the use of appropriate equipment.

B. Store products in provided, unopened packaging until ready for installation. Keep in a clean dry area protected from weather, moisture, and other damage causing agents. Store upright and do not stack. Product shall be stored away from the ground on pallets that won’t cause staining or on other temporary planking.

C. Protect product from stains, chips, and other damage.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers

A. Architectural Mall, Inc
323 St Paul Blvd
Carol Stream, IL 60188
T. 877-279-9993
E-mail: sales@architecturalmall.com
Web: columnsandbalustrades.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 Concrete Fireplace with EPS backing: High density concrete made with cement, crushed stone, silica sand, and polymers that are reinforced with fiberglass chop strand. The GFRC is further reinforced with EPS backing and additional structural reinforcing if required; asbestos free.

1. Color: As selected from manufacturer's options or custom to match Architect's sample.
2. Surface Texture: Exposed surface as selected from manufacturer's options.
3. Style: Select manufacturer's available styles or custom.
4. Density: 140 pcf (2240 kg/cu m).
5. Shell Thickness: 3/8" to 1".
6. Surface Burning Characteristics: Class A fire rating in accordance with ASTM E 84.
7. Weather Resistance: No significant loss in strength or change in appearance after accelerated weathering testing.
8. Flexural Strength: 1000 to 1800 psi (6.9 to 12.4 MPa).
9. Modulus of Elasticity: 2 x 10^5 psi (1370 MPa).
10. Compressive Strength: Over 5000 psi (34 MPa).
11. Variation from Dimensions Indicated on Drawings: Plus or minus 1/4 inch.
12. Variation from Plane Along Edge or Surface: Plus or minus 1/16 inch per linear foot.
13. Outside Corner Radius: 1/16 inch to 1/8 inch.
14. Provide non-corrosive anchors, hardware, and reinforced anchoring points if needed and as indicated on architectural drawings.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until all substrates have been properly constructed and inspected: Verify that all are plumb and true.

B. Notify Architect of unsatisfactory substrate preparation if done by another party.

C. If unsatisfactory conditions exist, proceed with installation only once they have been rectified.

D. Check as-built dimensions against as-drawn and verify that field dimensions will allow for proper installation. If dimensions vary and don't allow for proper installation, notify the Architect and wait for instructions prior to commencing installation.

3.2 PREPARATION

A. Clean surfaces thoroughly and properly prior to installation.

B. Prepare surfaces in the manner recommended by the manufacturer for achieving the best results for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in compliance with applicable code and in accordance to manufacturer's recommendations: Install plumb and true to line and shim where necessary.

B. Provide expansion joints in areas where moving joints in substrate occur.

C. Patch exposed anchor points, if any, to match color and texture of unit.

D. Clean GFRC fireplace(s) according to manufacturer's cleaning instructions.
   1. Remove dirt, stains, or any other residue.
   2. Protect surrounding materials and surfaces during cleaning.

3.4 PROTECTION

A. Protect installed fireplace(s) until the completion of the project.

B. If damaged, touch-up, repair, or replace before substantial completion.

END OF SECTION