



Name: BayStone – GFRC

Description: BayStone GFRC elements are designed and tested to offer high strength with a wide range of possibilities in shape, detail and finish. There is glass fiber reinforcing in a high strength Portland cement concrete matrix. Proprietary polymers in the system improve performance and increase impact resistance.

Since items are custom made, the BayStone GFRC is molded in the thickness most appropriate for the application. BayStone GFRC is cast in a variety of thicknesses, based on size of panel and need from between 1/8” to 1” (3 to 5 mm). Edges are slightly thicker and may be reinforced for fasteners.

BayStone GFRC weighs just 6 to 12 pounds per square foot (based on thickness).

BayStone GFRC is a non-combustible mineral composite. It will not burn.

Most projects are custom. Comprehensive shop drawings show shapes and dimensions and indicate layout and fastening methods.

Uses: Typical Uses Include:

- Architectural Moldings
- Columns and Column Covers
- Domes
- Decorative Ceiling Panels
- Complex details, double curves or shapes
- Light Coves
- Sculpture
- Duplication of Historical Elements

Benefits: BayStone GFRC is a composite of high-strength concrete and glass fibers, which can be factory molded into virtually any size or shape.

- Design Freedom. BayStone GFRC can be made in almost any shape.
- Lightweight. Less than 6 lbs. per square foot when 1/2” thick.
- 100% non-combustible.
- Stable. Made from high strength cement, BayStone GFRC is dimensionally stable under normal conditions.
- Contains no paper or cellulose that can serve as food for mold.



Sizes: Products are made to the size ordered. Maximum size is restricted by transportation and handling. Almost any size may be cast, but typical sizes able to be handled are around 5' by 10' for panels and 8' to 12' long for moldings and column sections. Special provisions must be made for shipping and handling larger elements.

Manufacturing Process:

1. From the architect's drawings, BayStone's CAD department generates shop drawings showing parts and installation.
2. Once the shop drawings are approved, a combination of the latest computer-driven CAM equipment as well as old-fashioned artistic skill produces the master from which molds will be made.
3. Molds are produced from the master.
4. High-strength concrete and glass reinforcing fiber is cast into the molds.
5. When the concrete has hardened, the parts are removed, cleaned, dried and quality inspected.
6. Parts are packaged for shipment to the jobsite.

Fire Performance: GFRC is composed of minerals and will not burn. BayStone GFRC meets or exceeds the requirement of Class I Flame Spread Classification under the Uniform Fire Code. Flame Spread Index is 0 and Smoke Developed Index is less than 20 (primarily water vapor) when tested per ASTM E, 84-01 "Standard Test Method for Surface Burning Characteristics of Building Materials". (NFPA 255, ANSI/UL 723 and UBC 8-1)

Replication & Mold-ability: Cast elements in BayStone GFRC offer designers a range of options. It can capture very fine and intricate details or produce sweeping curves and complex shapes

Technical Properties:

Description	Typical Values
Glass Fiber	5% +/- 20% by weight
Shell Thickness	1/2" to 1"
Weight	5 lbs. to 12 lbs. per S.F.
Tensile Strength	1,050 PSI
Flexural Strength	2,380 PSI
Compressive Strength	Over 4,500 PSI



Tolerances	
Description	Typical Values
Dimensions (All Directions)	+/- 1/4"
Thickness	+/- 1/4" Backside
Warpage or Bowing	1/8" per ft.

Control joints should be used where the GFRC:

- Crosses a construction joint (expansion, seismic or building control element) in the base building structure.
- Runs in an uninterrupted straight plane that exceed 30 linear feet (9 m).
- Where specified by the architect or designer as a design accent.

Limitations: Safety. Follow good safety and industrial hygiene practices during handling and installation. Always follow OSHA and other safety rules. Read material safety data sheets on products before installation. Cutting GFRC generates silica dust and precautions should be taken to avoid inhaling the dust.

Specifications: In North America GFRC is typically specified under CSI Division 3.

Availability & Production: BayStone GFRC products are available worldwide. Lead times vary depending upon the size and complexity of the project. Production capacity is over 500,000 sq. ft. per month.

Warranty: BayStone's standard warranty is one (1) year from receipt of materials.

Technical Services: For technical assistance, including more detailed product information, literature, assistance with detailing, testing and assistance with project specifications, call (510) 786-9663 or visit www.baystone.com.

Submittal Approval:

Job Name: _____

Building Label: _____

Owner: _____

Architect: _____

Contractor: _____

Approval By:

Name: _____

Title: _____ Date: _____