

Fiblast, LLC. 1602 Mizell Road Tuskegee, AL 36083

## GLASS FIBER REINFORCED CONCRETE (GFRC) 034900

#### **GENERAL SPECIFICATIONS**

#### 1 SCOPE

1.1 This specification encompasses materials and labor required in the manufacture of Architectural Fiberglass products to include Cornice, Building Claddings, Columns Covers, Gutters, Downspouts decorative shapes etc. These products are collectively called "Product" hereinafter. The product is designed for residential, industrial & commercial markets.

### 1.2 MANUFACTURER

FIBLAST, LLC.

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### **2 CONSTRUCTION**

2.1 The Product is made from Reinforced Concrete Composite Laminate combined with core materials (if applicable) appropriate for the total composite required to meet the physical requirements of external loads.



- 2.2 The product is produced in a controlled environment by the "Open Mold" process with secondary procedures to ensure proper and complete integrity between all materials used.
- 2.3 All patching material, if required, will be provided by Fiblast. All caulking materials, blocking and fasteners will be by others.

### 3 PRODUCT SIZES

- 3.1 Product can be formed in spherical or rectangular shape or any combination. They can be any shape for cornices as long as there is no negative draft to inhibit the open molding process.
- 3.2 For cornices, unless otherwise specified each panel is eight (8) ft long.
- 3.3 For Downspouts the min diameter is 5", or 4"x5" Rectangular.
- 3.4 The nominal shell thickness is 3/8" to 1". Thickness can vary depending upon the requirements or the job specifications.

# **4 ENVIRONMENT OPERATING REQUIREMENTS**

- 4.1 The product shall be able to resist all environments from minus 20 degrees to plus 150 degrees F.
- 4.2 The Product composite is constructed in such a manner to afford protection from climatic variations.
- 4.3 Specially formulated product is available in Bullet and/or impact resistant formulations.
- 4.4 Specially formulated product is available for extreme corrosive & chemical environments.



### **5 PRODUCT PROPERTIES**

- 5.1 Fiblast GFRC is easy to customize almost any shape.
- 5.2 Lightweight. Less than 6 lbs per square foot when 1/2" thick.
- 5.3 100% non-combustible.
- 5.4 Alkali Resistant Glass fibers are reinforced into Portland cement concrete mixture to make it more resistant.
- 5.5 Weight of mold depends on thickness.
- 5.6 Flame spread Index is 0 and Smoke Developed Index is less than 20, when tested per ASTM E 84-01.

### **6 GFRC MATERIAL**

- 6.1 Portland cement: ASTM C 150; Type I, II, or III.
- 6.2 Metakaolin: ASTM C 618, Class N.
- 6.3 Glass Fibers: Alkali Resistant, with a minimum zirconia content of 16 percent.
- 6.4 Sand: Washed and dried silica; ASTM C 144.
- 6.5 Facing Aggregate: ASTM C 33.
- 6.6 Coloring Admixture: ASTM C 979.
- 6.7 Water: Portable; free from deleterious material.
- 6.8 Air-Entertaining Admixture: ASTM C 260.
- 6.9 Chemical Admixtures: ASTM C 494/C 494M.
- 6.10 Tested per ASTM C947 & ASTM E84



# **7 TECHNICAL PROPERTIES**

7.1 Tensile strength (ASTM D 790): 1360 psi (9.4 MPa)
7.2 Flexural strength: 4220 psi (28.4 MPa)
7.3 Weight: 5.8 lbs. to 11 lbs.

7.4 Shell thickness 5/8"

7.5 Glass fiber 5 - 6% by weight

### **8 OTHER REFERENCES**

8.1 Shipping, handling, storage & installation instructions.

**END OF GENERAL SPECIFICATIONS**