

SUBMITTAL AND PRODUCT DATA SHEET

THE 4KIDS GFRC

High Strength Glass Fiber Reinforced Concrete
Shapes and Elements



Secret Garden • GFRC Bas Relief

BENEFITS AND ADVANTAGES

The4Kids GFRC is a composite of high-strength concrete and glass fibers, which can be factory molded into virtually any size or shape.

- **Design Freedom.** The4Kids GFRC can be made in almost any shape you can imagine.
- **Lightweight.** Less than 6 lbs per square foot when 1/2" thick.
- **100% non-combustible.** The4Kids GFRC is made from minerals and will not burn.
- **Stable.** Made from high strength cement, The4Kids GFRC is dimensionally stable under normal conditions.
- **An upgrade to standard GFRC.**
- **Higher impact strength than normal GFRC.**
- **Contains no paper or cellulose that can serve as food for mold.**

PRODUCT DESCRIPTION

The4Kids 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, The4Kids GFRC is molded in the thickness most appropriate for the application. The4Kids GFRC is cast in a variety of thicknesses, based on the design of custom piece being requested.

The4Kids GFRC is a non-combustible mineral composite that weighs just 5 to 11 pounds per square foot (based on thickness). It will not burn.

Typical Uses Include:

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



Atlantis Resort • GFRC Sculptures



Bahamas • GFRC Ocean Themes



Atlantis Resort • GFRC Waterslides

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.

THE4KIDS GFRC MANUFACTURING PROCESS

1. From the architect's drawings, The4Kids 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 models from which molds will be made.
3. Molds are produced from models.
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.

THE4KIDS GFRC PROPERTIES

Fire Performance

GFRC is composed of minerals and will not burn.

The4Kids 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 and Mold-ability

Cast elements in The4Kids 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 - 6% by weight
Shell thickness	1/2" to 1"
Weight	5.8 lbs. to 11 lbs.
ASTM D790 Tensile strength	1360 psi (9.4 MPa)
Flexural strength	4220 psi (28.4 MPa)

Control Joints in GFRC

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 AND PRODUCTION CAPACITY

The4Kids 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.

TECHNICAL SERVICES

For technical assistance, including more detailed product information, literature, assistance with detailing, testing and assistance with project specifications, call (903) 454-9237 or visit www.The4Kids.com

SUBMITTAL APPROVAL

Job Name	Date
Contractor	
Surfacing	
Notes	



Powell Gardens • GFRC Structures



Mayfield Park • GFRC Animals



Mallory Park • GFRC Treehouses

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