

GFRG

STROMBERG ARCHITECTURAL PRODUCTS

In 1977, a concept for a new material was introduced by England to the United States and Canada. That material, which consisted of gypsum plaster reinforced with glass fibers, is now known as Glass Fiber Reinforced Gypsum. This new material was not only thin, but also lightweight and impressively strong.

Before long, North American manufacturers began promoting and selling GRG products. By late 1978, GRG elements were being produced, sold, and installed across North America. During the early 1980s, Stromberg Architectural developed many of the techniques and technologies that are still used today by those who work with GFRG.



Ave Maria • Ave Maria, FL Over 50,000 square feet of Stromberg GFRG panels provide the stone look and feel to the interior while providing superior acoustic performance.



Fendi • Las Vegas, NV Surround, Columns, Brackets, Cornice, Pediment & Capitals

Glass

toughness

Flame Resistant

Fiber

Gypsum is composed of:

* Gypsum – a hard mineral

Why Choose GFRG?

GFRG is a mineral and will

not burn. In addition, the nature of the gypsum in

GFRG allows the material to act like a thermal regulator

* Glass fibers - to provide tensile and flexural strength * Polymers - to improve

Reinforced

Throughout 1980s, the manufacturers began promoting this material and its many advantages to architects and designers.

Some of the many selling points of GFRG include:

* GFRG has superior fireretardant properties.

* GFRG can be cast in a variety of shapes, a property it shares with plaster and precast.

* GFRG is lightweight.

Applications:

GFRG should be used in areas that are not subject to dampness. Do not use GFRG where it will be openly exposed to rain. Do not place GFRG around fountains, pools, or other wet locations.

- Moldings
- Ceilings
- Columns
- Light Coves
- Bas Relief

- ✤ Domes
- ✤ Capitals
- ✤ Fireplace Surrounds
- ✤ Medallions
- Custom Shapes

GLASS FIBER REINFORCED GYPSUM





Private Residence • Palo Alto, CA Cornice, Capitals, Brackets, Surround & Columns

when exposed to flame. GFRG will not burn, and it will also protect the materials behind it from the heat of the flame for up to two hours.

Easy Installation

GFRG is relatively light compared to traditional stone or plaster ornaments, making installation quick and relatively easy.

Selection

GFRG can be cast into virtually any shape. Stromberg Architectural can craft GFRG columns, bas relief, GRG domes, capitals, Glass Fiber Reinforced Gypsum fireplace surrounds, moldings, GFRG medallions, and many other custom GFRG elements.

<u>Finish</u>

GFRG is available in a white color, and is easily finished with virtually any paint.

GFRG is primarily composed of two raw materials: high density, alpha-based gypsum and glass fiber reinforcement. The gypsum plaster should be neutral or of low alkalinity to ensure its compatibility with "E" glass fibers. Additives commonly used within the plaster industry are acceptable, provided they are used in accordance with the gypsum manufacturer's recommendations.

An understanding of basic molding and casting constraints and standard tolerances will provide the architect and the engineer with a better understanding of GFRG designs and forms to be manufactured. Here are some design considerations that may affect the cost of producing a GFRG element or product:

1. The amount of detail: GFRG reproduce can intricate details or be cast so the surface consists of smooth sweeping curves. Details and undercuts require rubber mold liners, while smooth, flat surfaces and simple curves can be cast in rigid fiberglass molds. While rubber molds are slightly more expensive, the cost will be minimal if the casting is repeated several times.

2. Number of repetitive pieces: Numerous casts of a



Cheesecake Factory • Southlake, TX Columns & Cornice

single GFRG shape are more economical per piece than one time only casts.

3. Size: GFRG can be cast in pieces up to 28' in length. The longer the piece, the more difficult it is to handle

and ship the GFRG casting. Stromberg recommends a maximum length of 12' for most moldings. If longer lengths are required, pieces can be field joined to produce a seamless element.

STROMBERG ARCHITECTURAL PRODUCTS · GFRG

Contact us for GFRG jointing details.

4. Surface finish: The lowestpriced finish for GFRG is usually a smooth white one. These GFRG products are generally finished with a flat latex paint. If you intend to use a gloss finish, the GFRG will need field priming and prep work. Pre-finished GFRG is available in wood textures, BronzeClad, StoneClad, and special



Saint Anthony Cathedral School • Beaumont, TX



Atlantis Convention Center • Paradise Island, Bahamas Columns, Brackets, Cornice & Capitals

For a consultation, more information, CAD details, product samples or estimate, call or visit us on the web at:

textures and colors, but these will typically increase the final cost of the GRG product.

5. Special reinforcements: Some specific design considerations that may affect costs are corners, draft angles, reveals, and finishes. Unless otherwise noted, all GFRG corners should have a radius between 1/16" and 1/8".

<u>Finish</u>

In general, standard GFRG products do not have the surface characteristics required for a high gloss finish. In most cases, the surface can be adequately prepared in the field to receive high gloss paint through the use of compounds, sealers, and/or primers. Before GFRG products are crafted, specific information about the surface finish should be obtained. Desires for any special finish, such as gloss, which has more stringent requirements for use, should be specified during the design process. Many GFRG projects can be prefinished.



Cobb Cinema• Palm Beach Gardens, FL



Cabelas • Ft. Worth, TX GFRG Faux Wood Ceiling Beams

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