

PRODUCT DATA SHEET	May 2015
GFRG	

- **Trade Name:** Stucchitalia® GFRG
- **Common Names:** Glass Fiber Reinforced Gypsum / GFRG
Glassfiber Reinforced Gypsum / GRG
- **Manufacturer:** **Stucchitalia International LLC**
1220 New Market Street - Suite 808, 19801 Wilmington
New Castle – Delaware, U.S.A.
www.stucchitalia.com – info@stucchitalia.com

Summary

Stucchitalia GFRG is a composite of high strength alpha Hemihydrate gypsum cement reinforced with glass fibers that can be factory molded into virtually any shape or size. Glass Fiber Reinforced Gypsum (GFRG) parts are usually provided unfinished for on-site painting. Stucchitalia GFRG is a class A1 fire and smoke related material.

Detailed Description

GFRG is a white gypsum cement material that is molded into architectural elements used for a construction and renovation of interiors. GFRG parts weigh approximately 10-15 kg/m². Alpha gypsum is a material not be confused with the softer, lower density and heavier gypsum. Where once traditional “plaster castings” were used, GFRG is now specified because of its light weight, superior strength, sustainability characteristics, and ease of installation.

GFRG composites have enhanced physical properties compared to drywall or plaster, such as hardness and flexural strength. GFRG parts often incorporate embedments of steel or wood for added strength and to provide a means for attachment and suspension.

Components are fabricated from precision made molds, therefore, finished components are dimensionally accurate and can be assembled with ease in the field.

GFRG is a product that embodies post-consumer and industrial recycled content, and yields other benefits for sustainable construction.

GFRG is commonly used to make decorative ceiling coffers, domes and vaults; columns, capitals and bases; wall cladding; pilasters and pediments; moldings, light coves and running trim; brackets and corbels, Complicated geometric shapes, sculpted or perforated panels and many other decorative elements. These elements can be fabricated into virtually any shape or scale yielding fine surface detail, textures and patterns.

For a monolithic finish, parts are made with tapered edges, and joints are taped in the same manner as gypsum wallboard. Parts are then primed and painted. The use of glossy paints for finishing is not recommended. However, architects and designers should contact Stucchitalia to discuss their design intent.

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Stucchitalia will work with Architects and Designers to develop a practical plan for the parts and assemblies they envision through 3D modeling and/or Autocad or full size mock-ups. Detailed shop drawings and material samples are prepared for approval prior to manufacture.

Classifications and Approvals

GFRG is classified as "A1" in accordance with the European Standard EN 13501-1. This standard provides the reaction to fire classification procedures for all construction products, including products incorporated within building elements. A1 is the highest classification possible.

Stucchitalia GFRG is approved for use on cruise ships and marine applications with Module "B" and "F" Certificates of Approval in accordance with the International Maritime Organization (IMO) and Marine Equipment Directive (MED) regulations.

Samples Available

Stucchitalia is able to custom fabricate GFRG in a number of textures or patterns, and some may be available pre-finished. Please contact your local sales representative to learn more or discuss custom requirements for a specific project.

Physical and Mechanical Properties

Stucchitalia® uses alpha gypsum materials that are mined from some of the world's purest deposit with over 99% purity of $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. Throughout the fabrication process, the gypsum material is subjected to strict inspection and testing to guarantee its high level of quality. Our prominent gypsum suppliers certify the raw materials are in compliance with the ASTM C1355 Standard and UNI EN ISO 1182.

Matrix:	Alpha Gypsum Cement
Finitura:	Standard unfinished, white to off-white. Factory applied finishes available
Surface:	Standard smooth. Custom molded textured surfaces available
Density:	1675 kg/mc
Weight:	10 kg/mq*
Shell thickness:	9 mmi nominal
Edge thickness:	19 mmi typical
Embedments:	Galvanized steel or wood if required
Glass Fiber:	5% typical
Max. length moldings:	3.6 m
Max. size molded parts:	3.7 mq

* Typical weights: parts with deep surface relief or required added thickness (for acoustical mass) will weigh more. Please submit drawings for a more accurate estimate.

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Site conditions

Review the site conditions for compliance with Stucchitalia® requirements relating to environmental conditions, installation tolerances and other conditions affecting the installation and performance of GFRG parts. Any unsatisfactory conditions are to be corrected prior to installation. Field measurements are to be taken to verify the dimensions, including those not shown on the drawings, and provide specific details of any changes for inclusion into Stucchitalia® shop drawings prior to it commencing the manufacture of custom molds and GFRG parts. Stucchitalia® will produce parts in accordance with the approved shop drawings only, and is NOT responsible for any deviations between the site conditions and the approved drawings.