

GRG DÉCOR™ INDUSTRIAL PLASTER

GRG-DÉCOR™ is 100% alpha hemihydrate plaster formulated specifically for use in the fabrication of glass-reinforced gypsum products (GRG). It's low water demand results in high strength, high impact resistant GRG parts when combined with 5-6% glass fiber by weight. GRG-DÉCOR™ allows production of lightweight, thin-cast parts meeting international standards for GRG.

TYPICAL PHYSICAL PROPERTIES

Product	GRG DÉCOR
Color	
Plaster to Water Ratio (%P/W)	300
Water to Plaster Ratio (%W/P)	33.33
Initial Setting Time by Knife Setting (minutes)	13 - 22
Final Setting Time by Shore A (minutes)	23 - 37
Setting Expansion (%)	≤ 0.20

MIXING INSTRUCTIONS

MIX PREPARATION

Use potable water at temperature around 20 - 37 °C. Because variations in slurry (Plaster powder and water mixture) temperature produce variations in set time, it is important to keep both GRG-DÉCOR™ and water in a stable temperature environment prior to use. The higher the temperature of the slurry, the shorter the set time. Conversely, the lower the temperature of the slurry, the longer the set time.

Weigh both the plaster powder and water prior to use for each mix. The water-to-plaster ratio is critical because it contributes to the strength and density of the GRG parts.

SOAKING

Sift or strew GRG-DÉCOR™ into the water slowly and evenly. Do not drop large amounts of GRG-DÉCOR™ plaster directly into the water as proper soaking of Plaster may not occur. GRG-DÉCOR™ plaster should be fully dispersed in the water prior to mixing. Small batches require less soaking time than large batches.

MIXING

Mixing plaster slurry is one of the most important steps in producing GRG parts with maximum strength, hardness and other important properties.

Mechanically mixed slurries develop uniform parts with optimal strengths. GRG-DÉCOR™ can be mechanically mixed through both batch and continuous processes. Proper blade and bucket dimensions are important for obtaining the best batch mix.

Longer mixing times result in higher mold strength and shorter setting times.

FABRICATION

GRG-DÉCOR™ can be used in both hand lay-up and solid casting of GRG parts. For spray-up, retarder would be required.

Solid Casting: To prevent air entrainment and provide a uniform, smooth surface, careful pouring of GRG-DÉCOR™ slurry is necessary. Agitation/vibration of the filled mold is a further step used to prevent air at or near the mold surface. Whenever possible, GRG-DÉCOR™ slurry should be poured carefully in the deepest area so that the slurry flows evenly across the surface of mold.

DRYING

All GRG parts should be dried as quickly as is safely possible after manufacture so that maximum physical properties can develop. Dry to a constant weight in an oven (preferred) or air.

The best drying rooms or ovens provide:

- 1) uniform and rapid circulation (minimum of 5 - 10 mps) of air with no "dead spots" having little or no air movement
- 2) equal temperatures throughout the entire area
- 3) provisions for exhausting a portion of the air while replacing it with fresh air

High humidity surrounding the drying room or oven inhibits drying efficiency because the air pulled into the room is incapable of picking up much moisture from the molds.

The maximum temperature at which GRG parts are safe from calcination is 49 °C. Before removing molds from the dryer, the temperature should approach that of the area around the dryer to prevent the thermal shock.

STORAGE AND USE

When properly used, GRG-DÉCOR™ is safe to handle and easy to work with. Keep indoors in a dry, stable environment. Do not stack more than two pallets high. Keep from drafts. Rotate stock. Always follow handling and use directions and safety warnings on the package.

SHELF LIFE

Best before 6 months from manufacture.

For more information
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