

Watani GRG – High-Performance Glass Reinforced Gypsum

Watani GRG is a **uniquely formulated gypsum plaster** enhanced with **special strength additives** to deliver exceptional mechanical performance, durability, and a smooth, hard surface finish. It is specifically designed for **architectural moldings and decorative fabrications**, offering both strength and fine aesthetic quality.

Key Features

Property	Description
High Flexural & Compressive Strength	Enhanced formula provides excellent structural stability and durability for intricate shapes.
Smooth, Hard Surface Finish	Results in a dense, scratch-resistant surface ideal for painting and finishing.
Low Water & Paint Absorption	Reduces the need for surface preparation and enhances paint adhesion.
High Impact Resistance	Ensures long-term resilience in architectural installations.
Consistent Setting & Workability	Balanced open time and slump value for ease of casting and shaping.
Ease of Mixing & Application	Excellent flow and homogeneity, suitable for both hand and mechanical mixing.

Typical Applications

Watani GRG is ideal for **architectural and decorative moldings**, including:

- Custom **cornices, friezes, and ceiling centers**
- **Door casings, wall panels, columns, pilasters, and capitals**
- **Barrel vaults, domes, brackets, mantels, and ornamental shapes**

It is widely used in **interior architectural projects** such as theaters, hotels, palaces, and commercial buildings where precision and surface quality are critical.

Technical Specifications

Property	Specification
Water/Plaster Ratio	35–40%
Initial Setting Time	12–15 min
Final Setting Time	20–25 min
Slump Diameter	160–200 mm
Compressive Strength	≥ 30 MPa
Flexural Strength	11–15 MPa
Water Absorption	5–10%
Humidified Deflection	≤ 3 mm (1/8 in.)
Flame Spread Index	0
Smoke Developed Index	< 10
Nail Pull Resistance	≥ 489 N
Impact Resistance	≥ 3 ft-lb (≈ 4 J)
Hardness	≥ 50 Barcol

Mixing & Application Instructions

1. **Water Ratio:** Use 35–40% clean water relative to powder weight.
 2. **Preparation:** Sprinkle gypsum evenly over the water surface and allow 1 minute for absorption.
 3. **Mixing:** Use a **mechanical mixer (200–400 rpm)** for at least one minute to achieve a smooth, lump-free paste.
 4. **Casting:** Begin casting immediately after mixing for optimal performance.
 5. **Work Environment:** Avoid high temperatures, organic contamination, or high sulfate levels in water.
-

Storage & Handling

- Store in a **cool, dry, and ventilated area**, away from moisture, frost, and direct sunlight.
- Avoid contact with acids or incompatible materials.
- Wear **personal protective equipment** to prevent inhalation or contact with eyes and skin during mixing or handling.

Summary

Watani GRG delivers superior **strength, workability, and aesthetic finish**, making it the ideal choice for **architectural molding and decorative applications**. Its high flexural and compressive strength, smooth finish, and low water absorption ensure long-lasting performance and high-quality results.