



WATANI MC30

CALCIUM SULFATE DIHYDRATE ($\text{CASO}_4 \cdot 2\text{H}_2\text{O}$)

Together, We Build Gypsum Excellence

DESCRIPTION

Watani MC 30 is a premium gypsum casting powder designed for precision molding and ceramic casting applications requiring high strength, smooth finish, and controlled setting. It offers excellent mold reproduction, dimensional stability, and a balanced setting time suitable for both manual and machine casting. With enhanced density and surface hardness, it ensures durability, consistency, and superior performance in ceramic, art, and technical casting uses.

KEY FEATURES

- 100– 120 casting cycles (premium grade due to mixed gypsum and moderate setting time).
- High mechanical strength and durability for precision molds.
- Excellent dimensional stability for consistent mold reproduction.
- Easy to mix and apply, with controlled workability.
- Optimized setting time for manual and machine casting operations.
- Superior surface hardness and smooth finish.

TYPICAL APPLICATIONS

- Ceramic mold and sanitary ware casting.
- Industrial and technical plaster molds.

APPEARANCE

Supplied in 25 kg PP bags

STANDARDS

ASTM C59 / C59M

BS EN 13279-1

ISO 9001:2015 Quality Management



Phone
+966 11 512 2189

Email
info@w-gypsum.com

Address
Head Office: Saudi Arabia, Riyadh
Tahliah Street, Motoon North Building
Floor No 1, Office N101

Website
www.w-gypsum.net



PRODUCT SPECIFICATION

| SPECS | VALUE | ASTM STANDARD C472/471 | BS EN STANDARD 13279 |
|-------------------------------------|--------------------------------------|---------------------------|--------------------------------|
| CHEMICAL COMPOSITION | CASO ₄ ·½H ₂ O | — | — |
| INSOLUBLE RESIDUE ON SIEVES 60MM | % 2 . 1 - 1 | — | — |
| FINESSE ON 150 MM | 0% | 0-0.3 | — |
| RESISTANCE TO COMPRESSION | ≥ 150 KG/ CM2 | >12 | >6 |
| RESISTANCE TO BENDING | ≥ 60 KG/CM2 | — | >1 |
| BULK DENSITY | 900 - 1100 KG/M | — | — |
| WATER/GYPSUM ATIO | % 70- 68 | VICAT METHOD | METHOD (4.3.2) |
| INITIAL SETTING TIME | 12-18 MINUTES | — | KNIFE METHOD (4.4.1) |
| FINAL SETTING TIME | 25-32 MINUTES | — | KNIFE METHOD (4.4.1) |
| FLUIDITY | 200 - 220 CM | — | BY DISPERSAL METHOD (4-3-2) |
| WATER ABSORPTION | — | % 40 - 30 | |

MIXING GUIDELINES

1. Mixing Ratio

The gypsum-to-water ratio must strictly follow the values indicated in the Technical Data Sheet (TDS). Any deviation will significantly influence the mold's physical and functional properties such as porosity, absorption rate, mechanical strength, and setting time .

2. Water Specifications

Use only clean, potable water. The presence of organic impurities, dissolved salts, or elevated sulfate concentration accelerates setting reactions and negatively impacts the consistency and durability of the mold.

3. Soaking / Slurry Preparation

After charging gypsum into the pre-measured water, allow a soaking time of 1-2 minutes. This promotes proper wetting of particles, reduces entrapped air, and ensures efficient dissolution and hydration prior to agitation.

4. Mixing Process

- Employ a mechanical mixer operating at low rotational speed (≤ 400 rpm).
- Avoid high shear or turbulent mixing, as it induces air entrapment and non-uniform crystal growth, resulting in heterogeneous microstructure and lower mold performance.
- Minimum mixing duration: 1 minute to obtain a homogenous slurry with optimal rheological behavior.



Phone
+966 11 512 2189
Email
info@w-gypsum.com

Adress
Head Office: Saudi Arabia, Riyadh
Tahlah Street, Motoon North Building
Floor No 1, Office N101
Website
www.w-gypsum.net



STORAGE INSTRUCTIONS

Packaging: WATANI C must be stored in its **original, sealed packaging** to maintain its **integrity** and prevent contamination.

- **Ground Contact:** Avoid **direct contact with the floor**; use **pallets** or **elevated platforms** to protect the product from **moisture** and **dampness**.
- **Environmental Conditions:** Store in a **dry, well-ventilated area**, away from sources of **humidity, water, or direct sunlight**.

SHELF LIFE

The product retains its **optimal properties** for up to **12 months** from the **production date** indicated on the packaging.



Phone
+966 11 512 2189
Email
info@w-gypsum.com

Adress
Head Office: Saudi Arabia, Riyadh
Tahliah Street, Motoon North Building
Floor No 1, Office N101
Website
www.w-gypsum.net

