AL WATANIA GYPSUM COMPANY
الشـــــركة الوطـــــنية للجبـــــس

25 KG

WATANI CERAMIC

Together, We Build Gypsum Excellence

STANDARD

- ASTM C59 / C59M
- BS EN 13279-1
- ISO 9001:2015 Quality Management

DESCRIPTION

WATANI CERAMIC is a premium grade, ultra-white gypsum powder with fine particle size and exceptional purity, developed for molding and casting applications. It is based on high-purity natural gypsum, with $CaSO_4 \cdot ½H_2O$ as the primary component. This product is specially engineered to meet the demanding

PRIMARY USES

Impact reports cater to a variety of audiences, so it's best to adjust them accordingly. First, identify your target reader. Next, you can shift your focus on what they need to know.

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.

FEATURE

- 80–100 casting cycles
- High strength and durability
- Precise dimensional stability
- Optimized for suitable setting
- Superior surface hardness

Mixing Guidelines

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 .

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.

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.

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.

Product specification

SPECS	VALUE	ASTM STANDARD C472/471	BS EN STANDARD 13279
Chemical composition	CaSo4 . ½ H2o	-	
Insoluble residue on sieves 60µm	< 1 %	-	-
Finesse on 150 µm	0 %	1 - 0.3	
Resistance to Compression	≥ 130 Kg/ cm2	>12	>6
Resistance to Bending	≥ 40 Kg/cm2		>1
Bulk density	800 – 1000 kg/m3		-
Water/Gypsum Ratio	68 -70 %		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		30 – 40 %	

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