

Product Data Sheet

Dead Burned Magnesite (DBM) - Premium Sintered Grade

Description

Description	Dead Burned Magnesite (DBM), also known as sintered magnesia, is produced by calcining natural magnesite at very high temperature (typically above 1,700°C) to form dense, low-reactivity periclase (MgO) grains. This Premium Sintered Grade (97%+ MgO) is the premium tier, reserved for the most demanding ultra-high-temperature and high-purity refractory applications.
Applications	Premium magnesia-carbon bricks for high-end steelmaking Ultra-high-temperature furnace linings Magnesia-chrome brick production Specialty high-purity refractory castables requiring maximum corrosion resistance
Grade	Premium Sintered Grade, 97%+ MgO
CAS No.	1309-48-4

Key Benefits

1. Maximum density and minimum porosity for the highest slag and corrosion resistance in this range
2. Highest refractoriness, suited to ultra-high-temperature service conditions
3. Minimal impurity content supporting the most demanding refractory formulations
4. Preferred grade where maximum brick life and performance justify premium cost
5. Consistent, tightly controlled quality for specialty and technical refractory applications

Chemical Analysis & Physical Data

Typical Specification

Parameter	Test Method	Unit	Specification
MgO Content	XRF / Titration Method	wt%	Min. 97.0 (typical 97–98)
SiO ₂ Content	XRF / Gravimetric Method	wt%	Max. 1.5
Fe ₂ O ₃ Content	XRF / Spectrophotometric Method	wt%	Max. 1.0
CaO Content	XRF / Titration Method	wt%	Max. 1.5
Al ₂ O ₃ Content	XRF Method	wt%	Max. 0.3
Bulk Density	Standard Bulk Density Method	g/cm ³	3.40 – 3.45
Apparent Porosity	Water Absorption Method	%	Max. 14
Refractoriness (Service Temp.)	Standard Refractoriness Method	°C	≈ 1,950 – 2,000+
Appearance	Visual	–	Light grey to white-grey dense granules

Packaging

Packaging 25 kg / 50 kg PP Woven Bags (with liner)
1,000 kg Jumbo Bags (FIBC)
Bulk (bulker/hopper truck) available on request for large orders
Custom packaging available on request.

Storage & Handling

1. Store in a dry, covered warehouse away from moisture and contamination
2. Keep bags sealed until point of use to prevent cross-contamination between grades
3. Segregate different MgO grades clearly to avoid mix-up during storage and dispatch
4. Stack on pallets, away from direct ground contact
5. Use appropriate PPE (dust mask, goggles) when handling – avoid dust generation

Quality Assurance

1. Every batch is tested against the specification above before dispatch
2. A batch-specific Certificate of Analysis (COA) accompanies each shipment, reporting MgO content, bulk density and apparent porosity against this TDS
3. COA available on request prior to shipment for buyer pre-approval
4. Third-party inspection (SGS/Intertek) can be arranged on request for regulated-market shipments

Disclaimer: The information provided in this document is based on our current knowledge and is intended as a general guide. Ochnology Solution Pvt. Ltd. reserves the right to modify specifications without prior notice. Buyers are advised to conduct their own testing for specific applications. A batch-specific Certificate of Analysis (COA) is available on request for each shipment.