

Product Data Sheet

Dead Burned Magnesite (DBM) - High Performance 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 High Performance Grade (94–96% MgO) is a high-performance tier used in demanding steelmaking refractory applications requiring superior slag resistance.
Applications	High-grade magnesia-carbon bricks for BOF/EAF steelmaking converters High-performance steel ladle linings High-temperature furnace applications requiring superior slag resistance Premium refractory castables for demanding service conditions
Grade	High Performance Grade, 94–96% MgO
CAS No.	1309-48-4

Key Benefits

1. High density and low porosity for superior slag and corrosion resistance
2. Higher refractoriness supporting demanding high-temperature steelmaking applications
3. Lower impurity content (SiO₂, Fe₂O₃) improving high-temperature performance
4. Preferred grade for high-grade magnesia-carbon brick manufacturing
5. Strong balance of performance for premium industrial refractory applications

Chemical Analysis & Physical Data

Typical Specification

Parameter	Test Method	Unit	Specification
MgO Content	XRF / Titration Method	wt%	Min. 94.0 (typical 94–96)
SiO ₂ Content	XRF / Gravimetric Method	wt%	Max. 2.5
Fe ₂ O ₃ Content	XRF / Spectrophotometric Method	wt%	Max. 1.5
CaO Content	XRF / Titration Method	wt%	Max. 2.0
Al ₂ O ₃ Content	XRF Method	wt%	Max. 0.5
Bulk Density	Standard Bulk Density Method	g/cm ³	3.30 – 3.40
Apparent Porosity	Water Absorption Method	%	Max. 16
Refractoriness (Service Temp.)	Standard Refractoriness Method	°C	≈ 1,850 – 1,900
Appearance	Visual	–	Light brown to grey-brown 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.