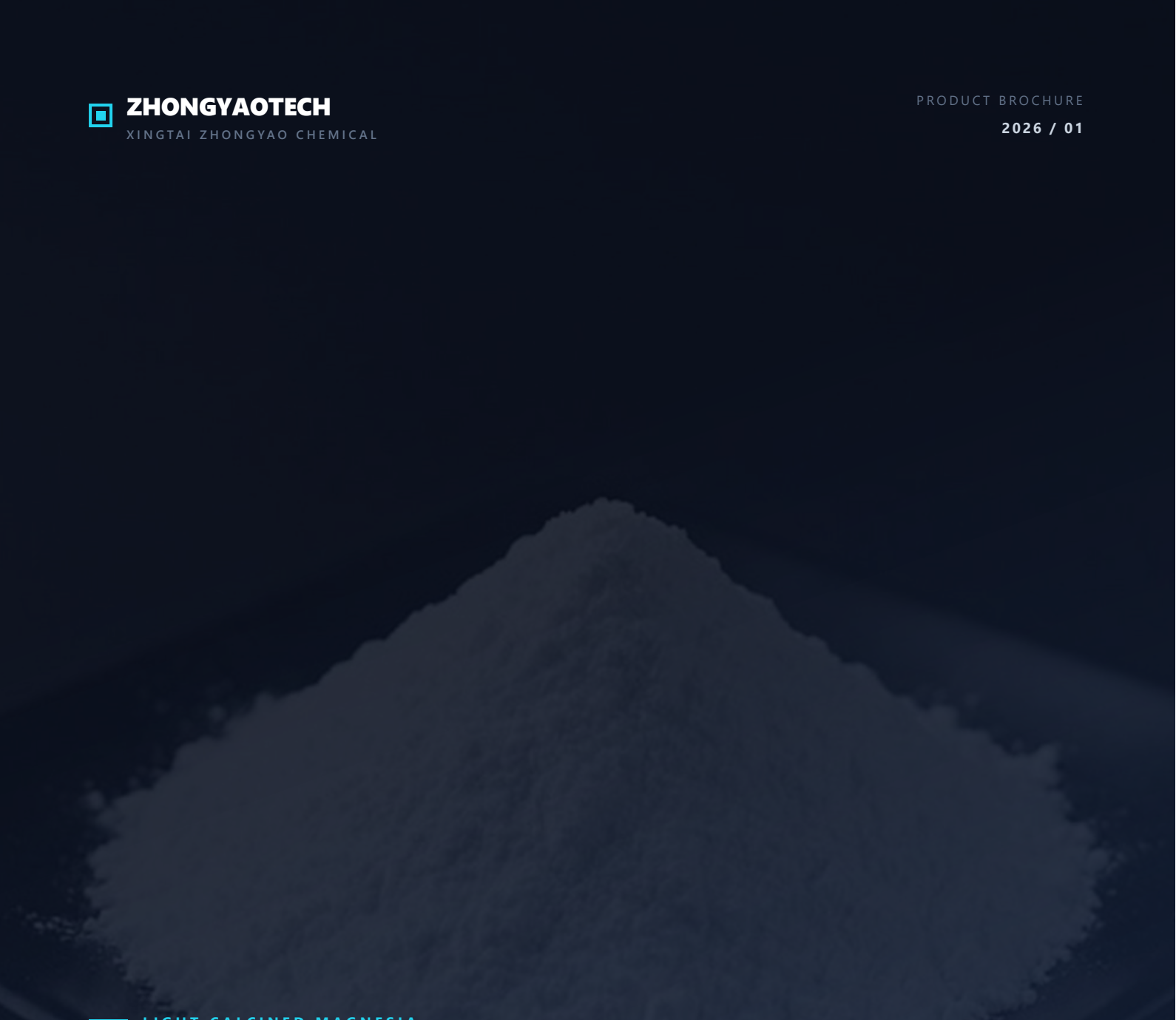
ZHONGYAOTECH
XINGTAI ZHONGYAO CHEMICAL

PRODUCT BROCHURE
2026 / 01



LIGHT CALCINED MAGNESIA

# Light Magnesium Oxide.

Low bulk density, high surface area, fast reactivity — the grade specified as caustic calcined magnesia for ceramics, adhesives and rubber.

| GRADE | BULK DENSITY | D50 | CAS |
| --- | --- | --- | --- |
| CCM | 0.2–0.5 | 2–5 μm | 1309-48-4 |

Low bulk density means **more surface per kilo** — which is why it reacts faster than **any heavy grade**.

**0.2–0.5**

BULK DENSITY G/CM³

Roughly a third of dead-burned magnesia, so it disperses quickly.

**Amorphous**

CRYSTAL FORM

High defect density drives rapid hydration and neutralisation.

**0.8–8 µm**

D50 RANGE

Adjustable by milling circuit without changing chemistry.

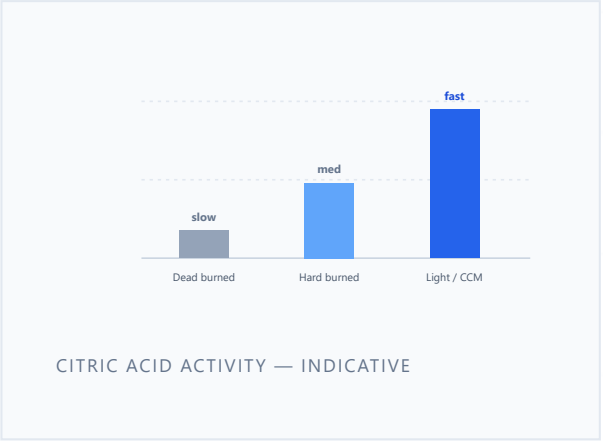
01 — MECHANISM

# Calcined light, not dead burned.

Light magnesia is produced at 700–1000 °C — hot enough to decompose the carbonate, cool enough to leave a defective, highly reactive crystal lattice. Dead-burned grades are fired above 1600 °C and become almost inert.

That reactivity is the product: fast acid neutralisation in adhesives, scorch control in rubber, and fluxing behaviour in ceramics.

**Compare.** Synonyms used by buyers: light calcined magnesia, caustic calcined magnesia (CCM), light burned magnesia.




CITRIC ACID ACTIVITY — INDICATIVE

PROCESS

Mixing → Cure → Service

Reactivity by calcination — Citric acid activity — indicative

| CALCINATION | BULK DENSITY | REACTIVITY |
|---|---|---|
| **700–1000 °C** | **0.2–0.5 g/cm³** | **High** |
| vs >1600 °C | vs 0.9–1.4 g/cm³ | vs Very low |

02 — SPECIFICATION

# Controlled batch to batch.

| Parameter | Standard value | Method |
|---|---|---|
| MgO Content | **≥ 98.8%** | Batch COA |
| Ca Content | **≤ 0.05%** | Batch COA |
| Fe Content | **≤ 0.005%** | Batch COA |
| Chloride (Cl-) | **≤ 0.4%** | Batch COA |
| SiO2 Content | **≤ 0.01%** | Batch COA |
| Particle Size D50 | **40-60 µm (HD-8) / 1-2 µm (HD-9)** | Batch COA |
| Bulk Density | **0.5 g/ml (HD-8) / 0.3 g/ml (HD-9)** | Batch COA |
| Whiteness | **≥ 95%** | Batch COA |
| Loss on Ignition | **≤ 29.2%** | Batch COA |

## Customisation

D50 and BET surface area are adjustable within one chemistry. Specify the activity test you use (citric acid or iodine value) and we will match against it.

SUPPLY

| | |
|---|---|
| Packaging | **25 / 1 000 kg** |
| Minimum order | **1 t** |
| Lead time | **3–7 days** |
| Grade code | **Light-MgO** |

**CAS** 1309-48-4 · Batch COA with every shipment. TDS and SDS on request.

INCOMING

### Ore assay

Every lot screened for Fe, Ca, Si before calcination.

IN PROCESS

### Activity + LOI

Sampled during production against the batch target.

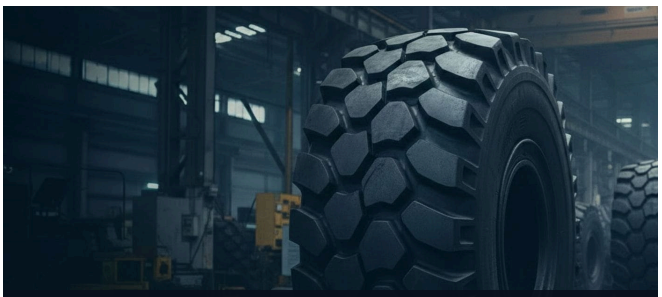
BEFORE SHIPMENT

### Full COA

Complete release testing, third-party reports on request.

03 — APPLICATIONS

# Where it is specified.



01

## Rubber compounding

Scorch control and acid acceptance



02

## Adhesives and sealants

Neoprene and polychloroprene systems



03

## Ceramics

Sintering aid and flux



04

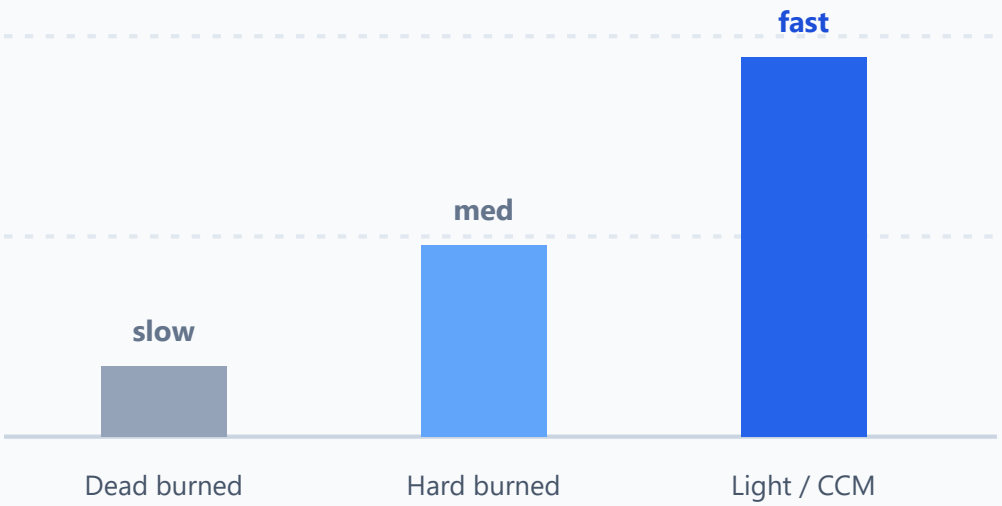
## Neutralisation

Wastewater and process liquors

Dosage and loading figures are starting points for formulation trials. Final performance depends on the complete compound and test conditions.

04 — PERFORMANCE

# Loading against performance.




CITRIC ACID ACTIVITY — INDICATIVE

| Property | Light / CCM | Dead burned |
|---|---|---|
| Calcination | **700–1000 °C** | >1600 °C |
| Bulk density | **0.2–0.5 g/cm³** | 0.9–1.4 g/cm³ |
| Reactivity | **High** | Very low |
| Typical use | **Rubber, ceramics, adhesives** | Refractories |

## PACKAGING

**25 kg** PE-lined PP woven bag, palletised on request.

**1 000 kg** jumbo bag for bulk compounding lines.

## LOGISTICS

| | |
|---|---|
| 20' FCL load | **20–24 t** |
| Port of loading | **Tianjin / Qingdao** |
| Incoterms | **FOB / CIF / CFR** |
| HS code | **2519.90** |

05 — SUPPLY

# Batch traceable. Documented every time.

Every shipment carries a batch-specific COA. TDS, SDS and REACH statements are issued on request. Production is ISO 9001:2015 certified.

**50,000 t**
ANNUAL CAPACITY

**50+**
EXPORT COUNTRIES

**1 t**
MINIMUM ORDER


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Specifications are typical values and do not constitute a batch release certificate. Confirm acceptance criteria against the batch COA and the TDS in force at the time of order.

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