Active Magnesium Oxide

Specialty MgO · **CAS 1309-48-4** · **Grade A150**

1. PRODUCT DESCRIPTION

Produced through flash calcination technology, Active Magnesium Oxide achieves an exceptionally high specific surface area (120-160 m^2/g) and iodine absorption capacity (≥120 mg/g), making it the gold standard for halogenated rubber systems. In neoprene (CR) adhesives, it neutralizes hydrogen chloride released during storage, preventing premature cross-linking and extending pot life from 2-3 months to 6-9 months. For rubber compounding, it acts as a rapid acid acceptor, absorbing HCl generated during mixing at temperatures above 100°C, thereby preventing scorch (pre-vulcanization). Its ultra-fine particle size (99.9% passes 325 mesh) ensures uniform dispersion without agglomeration.

2. TYPICAL PROPERTIES

PROPERTY	TYPICAL VALUE
MgO Content	≥ 95.0%
Iodine Absorption	≥ 120 mg/g
Specific Surface Area	140 m²/g
Screening Rate (325 mesh)	≥ 99.9%

> **Typical values, not a purchase specification.** A batch-specific Certificate of Analysis is issued for every shipment. Confirm acceptance limits for your application with us before ordering.

3. MATERIAL CONSTANTS

PROPERTY	VALUE	SOURCE
True density	3.58 g/cm³	Literature value
Melting point	2,852 °C	Literature value
Mohs hardness	5.5	Literature value
Refractive index	1.736	Literature value

4. TYPICAL APPLICATIONS AND KEY PROPERTIES

- Iodine Absorption ≥120 mg/g (vs 60-80 for standard grades)
- Extends Adhesive Pot Life 3x (6-9 months vs 2-3 months)
- Prevents Rubber Scorch during mixing (safe processing to 120°C)
- 99.9% Fineness (325 mesh) for lump-free dispersion

5. HANDLING NOTES

- **Dispersion.** Dry-blend or side-feed depending on loading; avoid moisture pickup before compounding.
- **Storage.** MgO is hygroscopic — reseal opened bags and use within the recommended period.
- **Dosage.** Confirm the addition level against your compound formulation; over-dosage can scorch or affect cure.
- **Safety.** Dust mask and eye protection when handling powder. See the SDS for full information.

6. PACKAGING AND STORAGE

ITEM	DETAIL
Packaging	25 kg PP woven bag with PE liner; larger packaging on request
Storage	Cool, dry, sealed — keep away from acids and moisture
Shelf life	24 months in unopened original packaging
Loading port	Tianjin (Xingang) / Qingdao

7. REGULATORY STATUS

ITEM	STATUS
REACH SVHC	Base material screened — no SVHC above 0.1 % w/w (SGS SHAEC2008188708). Treated grades can be tested on request.
RoHS (EU) 2015/863	Base material compliant (SGS NGBEC25004227002 / CZXEC1900477942). Treated grades on request.
Quality system	ISO 9001:2015 — certificate 21726Q00302R001, valid to 2029-04-15