MgO for Rubber Hoses

Rubber Industry · **CAS 1309-48-4** · **Grade SY01**

1. PRODUCT DESCRIPTION

Developed for NBR (nitrile), CSM, and fluoroelastomer (FKM) hoses operating under hydraulic pressure (300+ bar) and chemical exposure, this grade's controlled activity (100-140s citric acid test) ensures it neutralizes acids without triggering premature vulcanization. In automotive fuel/oil hoses, it prevents volume swell caused by acidic combustion byproducts, maintaining dimensional stability (±5% volume change after 168h in Fuel C at 60°C). For hydraulic hoses, it acts as a metal deactivator, chelating trace iron ions that would otherwise catalyze oxidative aging. Its ultra-fine particle size ensures dispersion without filter clogging during extrusion.

2. TYPICAL PROPERTIES

PROPERTY	TYPICAL VALUE
MgO Content	≥ 95.0%
Activity	100-140 s
CaO	≤ 1.2%
Particle Size	Super Fine

> **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

- Prevents Acid Swelling (maintains <5% volume change in Fuel C)
- Extends Hose Life 2-3x (vs non-protected formulations)
- Processing Safety Window 100-140s (prevents scorch during mixing)
- Filter-friendly Fineness (no 40-mesh residue, avoids extrusion clogging)

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