MgO for Rubber Sheathed Cables

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

1. PRODUCT DESCRIPTION

Formulated for chlorosulfonated polyethylene (CSM), ethylene-propylene-diene (EPDM), and chloroprene (CR) cable jackets, this grade combines electrical insulation with chemical resistance. Its controlled surface area (60-80 m^2/g) provides optimal balance: sufficient reactivity to neutralize halogen acids during compounding, yet low enough moisture absorption (<0.8%) to prevent water treeing in high-voltage applications. In mining cables exposed to oil/grease, it maintains dielectric strength above 20 kV/mm even after 30-day immersion. For marine applications, it enhances ozone resistance—critical where UV+ozone exposure degrades unsaturated rubber backbones.

2. TYPICAL PROPERTIES

PROPERTY	TYPICAL VALUE
MgO Content	≥ 93.0%
Specific Surface Area	60-80 m²/g
Moisture	≤ 0.8%
Sieve Residue	≤ 0.05%

> **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

- Dielectric Strength 20+ kV/mm (withstands voltage spikes)
- UV+Ozone Resistance (5000h accelerated aging without cracking)
- Oil Swell Resistance (maintains flexibility in petroleum environments)
- Processing Safety (no pre-scorch during extrusion at 90-110°C)

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