



# Magnesium Oxide

as processing aid in rubber production

- Light, medium and hard burnt synthetic MgO
- Very fine and homogeneous particle sizes

#### Powder grades

- Low bulk density powders
- Various activity levels

#### Pre-dispersed pastes + preparations

- Dust-free, easy to dose
- Non-migrating, organic matrix
- Matrix and packaging compatible in rubber
- Well-established in rubber applications since 1968

Serving the rubber industry since 1906

## Typical uses

Mainly applied in halogenated polymer systems, such as chloroprene rubber (CR), chlorosulfonated polyethylene (CSM), chlorinated polyethylene (CM), fluorinated rubbers (FKM) and halobutyl rubbers (CIIR, BIIR).

In the production of rubber products MgO acts during vulcanisation as a curing activator, as acid / chlorine scavenger and improves the scorch behavior. It also stabilzes halogen-containing rubber compounds over lifetime by aging prevention where it acts as an internal scavenger for chlorine radicals. Typical dosage of MgO ranges from 3 – 7 phr depending on curing system and formulation details.

Products are in compliance with REACh, food contact and various country-specific inventories.

Chlorine scavenger during ZnO curing

Scavenger for chlorine radicals upon aging

## **Property profiles**

### LUVOMAG® powder grades

Grade		<b>Surface Activity</b> BET area (m²/g)	Bulk density (g/l)	Particle size d₅ (μm)	<b>Purity</b> Mg0 content*
High activity grades	M 175	185	500	2	> 99.2%
	M 074	160	400	3	> 98.7%
	N50®	140	230	3	> 97.7%
	N50® light	140	205	3	> 97.7%
	M 474	140	350	3	> 97.5%
Medium activity grade M 072		100	395	3	> 98.5%
Low activity grades	M 440	50	200	3	> 98.0%
	М 045	45	350	6	> 98.5%
	M H30 light	40	220	3	> 97.8%

<sup>\*</sup> weight% on ignited basis; MAGLITE® registered trademark of HallStar (not available in all countries); further grades available upon request

### LUVOMAG® paste grades

High activity magnesium oxide is finely dispersed in a non-migrating, organic matrix system. Due to its hydrophobic nature, the matrix prevents MgO aging from moisture uptake and CO<sub>2</sub> absorbtion.

Grade		MgO content wt%	<b>Bulk density</b> (g/l)	Appearance
Based on high activity grades	300	60	1.900	Paste (oily matrix)
Based on high activity grades	300 GRAN	60	800	Pellets (EVA* matrix)
	270	70	1.900	Paste (oily matrix)
Based on medium activity grades	290	75	1.900	Paste (oily matrix)
	290 GRAN	75	800	Pellets (EVA* matrix)

LUVOMAG® pastes are delivered in 1kg one-packs (paste bars or pellets) wrapped in EVA\* film for easy "throw-all-in" dosage.

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<sup>\*</sup>Melting point of used EVA grade: 70°C