

The logo for SIG, consisting of the letters 'SIG' in a bold, green, sans-serif font.

Magnesium Oxide - Special Industrial Grade

A versatile grade extensively used for the production of high purity magnesium compounds. SIG is ideal as a raw material where very high purity and low-to-moderate reactivity are required.

| Chemical Analysis | Specification | Typical Value |
|--|---------------|---------------|
| Magnesium Oxide as MgO (ignited basis) | 99.0% min. | 99.5% |
| Calcium as CaO | 0.3% max. | 0.15% |
| Iron as Fe ₂ O ₃ | 0.04% max. | 0.01% |
| Silicon as SiO ₂ | 0.05% max. | 0.02% |
| Boron as B ₂ O ₃ | 0.01% max. | 0.005% |
| Sodium as Na | 0.1 % max | 0.03% |
| Chloride as Cl | 0.25% max. | 0.10% |
| Sulphate as SO ₄ | 0.25% max. | 0.20% |
| Loss on ignition (900° C) | 2.0% max. | 0.8% |

| Physical Properties | Specification | Typical Value |
|-----------------------|------------------------|---------------------|
| Bulk density (tapped) | 0.4–0.6 g/cc | 0.5 g/cc |
| Surface area (BET) | 4–20 m ² /g | 7 m ² /g |
| Particle size | | |
| Residue on 100 mesh | 2% max. | 1% |
| Residue on 200 mesh | 10% max. | 7% |
| Residue on 325 mesh | 25% max. | 15% |

Appearance and description: Free flowing white powder, almost insoluble in water. Insoluble in alcohol. Dissolves in dilute mineral acids. (Caution! Exothermic reaction!)

Packaging and storage: Net 25 kg in heavy duty paper valve bags with coated barrier ply, or big bags of 700 kg. Store in original packaging in a dry, ventilated space. Shelf-life under suitable storage conditions: 2 years from date of manufacture.

Custom-tailored specifications and other packaging modes are available.