

Specification of MgO nanopowder

Due to its small grain size and large specific surface area, Magnesium oxide nanopowder has optical, electrical, magnetic and chemical properties different from the body material and is characterized by high hardness, high purity and high melting point.

Characteristics of the Product

Magnesium oxide nanopowder is white, odourless, and non-toxic. Due to its unique property, it is widely used in electronic, catalytic, ceramic, oil product, coating and other fields. In the textile field, with the ever-growing demands for high-performance fire-retardant fibre, the synthesis of a new-type and high-performance fire retarding agent will provide an ideal material for the development of a functional fabric. Magnesium oxide nanopowder is usually used, together with wood chips and wood shavings, to make refractory materials, such as light-weight, sound-proof, heat-insulating and refractory fiber board and metallic ceramics. As compared with some traditional phosphorus or halogen-containing organic fire retarding agent, Magnesium oxide nanopowder is non-toxic, odourless and less in quantity to be added, therefore it is an ideal additive for developing fire-retarding fibre. Moreover, when it is used in fuel, Magnesium oxide nanopowder has a strong ability to clean and inhibit corrosion, therefore it has good prospect of application in coating

Technical Index

No.	Index	Index value	
		Mg-01	Mg-02
1	Appearance	White powder	White powder
2	Content of magnesium oxide (%)	≥99	≥99
3	Average grain size (nm)	100	40
4	Specific surface area (m ² /g)	≥7.3	≥50
5	Loss of weight in drying	≤0.3	≤0.5
6	Loss of weight in burning (%)	≤0.1	≤0.2
7	Calcium (Ca)(%)	≤0.05	≤0.05
8	Potassium (K)(%)	≤0.02	≤0.02
9	Sodium (Na)(%)	≤0.03	≤0.03

Proposed Quantity

According to the different systems, the quantity to be added ranges from 0.1 ~ 30%, the user should determine the optimal quantity to be added according to different systems and through testing or contact us.

Applications

- (1) Fire retardant used for chemical fiber and plastics trades.
- (2) High-temperature dehydrating agent used for the production of silicon steel sheet, high-grade ceramic material, electronic industry material, adhesive and additive in the chemical raw material.
- (3) High-frequency magnetic-rod antenna, magnetic device filler, insulating material filler and various carriers used in radio industry.
- (4) Refractory fiber and refractory material, magnesite-chrome brick, filler for refractory coating, refractory and insulating instrument, electricity, cable, optical material, material for steel-smelting furnace and other high- temperature furnaces, heating material and ceramic base plate.
- (5) Electric insulating material for making crucible, smelter, insulated conduit (tubular component), electrode bar, electrode sheet.
- (6) Fuel additive, cleaner, antistatic agent and corrosion inhibitor.