

Liaoning Jiashun Chemical Science and Technology Co., Ltd

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H-series

Special high temperature electrical grade MGO powder

Features and applications:

H-series is light or non-silicone treatment MGO powder. There are four different grades. H-series is used for manufacturing high temperature air heating elements. H-series can stand high temperature heat treatment, like 1050C annealing. H-series has no moisture-proof. Elements need sealing without delay.

Main chemical composition:

Grade	Main chemical composition %						Magnetic content	Sulphur	Carbon
	MgO	CaO	Al ₂ O ₃	Fe ₂ O ₃	SiO ₂	LOI			
JS-H9	≥97.5	≤1	≤0.9	≤0.3	≤1.5	≤0.02	≤40ppm	≤1PPM	≤10PPM
JS-H8	≥97	≤1.5	≤0.9	≤0.4	≤2	≤0.02	≤50ppm	≤1PPM	≤10PPM
JS-H7	≥96	≤2	≤0.9	≤0.5	≤2.5	≤0.03	≤60ppm	≤1PPM	≤10PPM
JS-H6	≥95.5	≤2	≤0.9	≤0.6	≤3	≤0.03	≤60ppm	≤1PPM	≤10PPM

Model No.	Grade	Suggested Application	W/cm ²
JS-H9	A	>950C (air heating)	>10W/cm ²
JS-H8	B	850C (air heating)	<10W/cm ²
JS-H7	C	700C (air heating)	<8W/cm ²
JS-H6	D	550C (air heating)	<6W/cm ²
JS-H60	E	350C (air heating)	<5W/cm ²

Mesh Analysis:

Mesh	+40	+60	+80	+140	+200	+325	-325
Particle size (μm)	+425	+250	+180	+106	+75	+45	-45
Content (%)	≤0.5	26±6	25±6	25±6	12±3	11±3	5±3

Remark: Contents of +425 μm and -45 μm are controlled tightly. In order to acquire needed tap density and flow rate, other contents will be adjusted. (Custom-made for special specifications)

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Tap density: T.D. (g/cm^3) : 2.30-2.45 g/cm^3

Flow rate: (F.T. s/100g) : 35 \pm 4

(F.R. s/100g) : 175 \pm 20

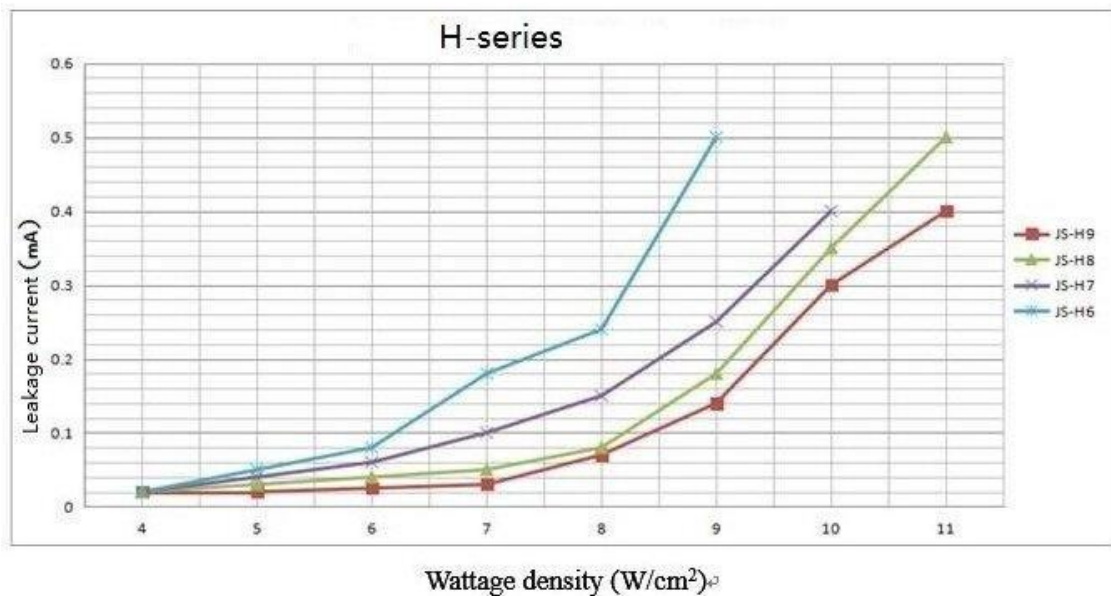
Package:

25KG/Carton, 1MT/pallet; Ton bag; Plastic bucket

Safety and storage:

Electrical grade MGO powder is non-toxic, but with tiny amount of dust. We suggest to use mask and gloves in application. MGO powder should be stored in dry places. Storage time suggested is less than 12 months after delivery.

Leakage Current VS Surface Wattage Density



Test Conditions:

Tube material: Incoloy840, ϕ 8.0 \times 0.5, L500, Resistance wires: Ni80Cr20, ϕ 0.35, coil dia ϕ 2.3

Shrink tubing: ϕ 8.0 \rightarrow ϕ 6.6mm, heating length: 450 \pm 10mm, Heat treatment: 1050 $^{\circ}\text{C}$ /15Min

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Grade	Main Electrical Specifications									
	Cold		Leakage current when heating(mA)							
	Insulation MΩ	Hipot V/1mA	4W /cm ²	5W /cm ²	6W /cm ²	7W /cm ²	8W /cm ²	9W /cm ²	10W /cm ²	11W /cm ²
JS-H9	≥1000	≥2500	0.02	0.02	0.025	0.03	0.07	0.15	0.3	0.4
JS-H8	≥1000	≥2500	0.02	0.03	0.04	0.05	0.08	0.18	0.35	0.5
JS-H7	≥1000	≥2500	0.02	0.04	0.06	0.1	0.15	0.25	0.4	——
JS-H6	≥1000	≥2500	0.02	0.05	0.08	0.18	0.24	0.5	——	——

Special Introduction:

H-series is special high temperature MGO powder with new research and development. It is used for manufacturing high temperature 1000C air heating elements. H-series can stand high temperature heat treatment, like 1050C annealing. Compared with normal high temperature powder from other China suppliers, H-series has following quality advantages.

1, Low magnetic content

Magnetic content of powders from other China suppliers is between **200ppm~600ppm**.

Magnetic content of each grade of H-series is **≤40ppm**.

Low magnetic content helps to increase life time of heating elements. Test proves life time is increasing more than 20% with our H-series powder.

2, Low moisture content

Moisture content of powders from other China suppliers is ≥0.08%, or even ≥0.1%.

Moisture content of JS-H9 is less than 0.04%.

Low moisture content helps moisture-removing of heating elements. Especially to long tube heating elements, low moisture content can avoid tube expanding when heat treatment.



3, Low hydration rate

Low hydration rate means mgo powder has very slow moisture absorption.

4, Low sintering index

Bending and hipot decay is lesser. Low sintering index helps increase Dielectric Strength of heating elements.

5, without organic impurity

This can avoid carbonization of organic impurity when high temperature heat treatment.

6, excellent electrical performance

In general, compared with normal high temperature powder from other China suppliers, H-series has better electrical performance. Application to heating elements > 2.5 meters, insulation and dielectric strength improve obviously.

7, Low dust.

It makes good surroundings when filling powder.