Ube Material Industries,Ltd.

HIGH PURITY & ULTRAFINE SINGLE CRYSTAL MAGNESIA POWDER

HIGH PURITY & ULTRAFINE SINGLE CRYSTAL MAGNESIA POWDER is manufactured by the oxidation process of magnesium vapor in Ube Material Industries, Ltd.
Particle size of the powder 500A and 2000A are controlled only by the crystal growth mechanism without any mechanical pulverizing which has the probability of introducing impurity.
This magnesia powder is widely used in fine ceramics manufacturing as well as in the electric and electronics fields.

Grade

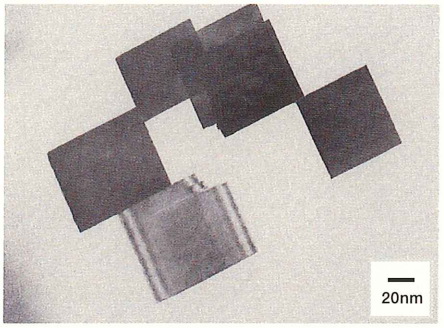
Grade	Particle Size(nm)	BET Specific Surface Area(m^2/g)	Package(kg)
500A	45～60	28～38	10
2000A	190～240	7～9	10

Chemical Composition

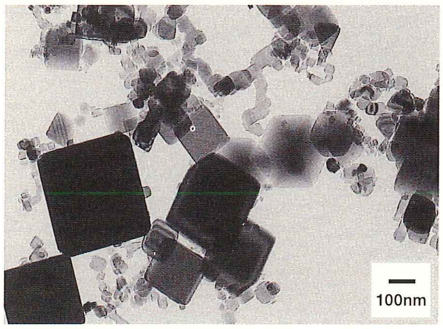
MgO	>99.98	%
Al	<5	ppm
Si	<10	
Ca	<10	
Fe	<5	
Zn	<40	
Na	<5	
Mn	<15	
Ni	<1	
Cr	<3	
B	<1	
U,Th	≒1	ppb

Transmission Electron Microscope photograph

500A



2000A



CHARACTERISTICS

1. This powder has excellent qualities and contains very low impurities.
2. The particles of this powder are ultrafine single crystals with excellent dispersibility features.
3. Low-temperature sintering can be achieved due to the extremely high activity of this ultrafine powder.
4. Very narrow particle size distribution: On sintering, there is no exaggerated grain growth.
5. The total arrant of α-rays radioactive isotopes (Uranium and Thorium) is only about 1ppb.

MAIN APPLICATION

1. Fine Ceramics Field ● Magnesia Ceramic ● Magnesia Ceramics ● Spinel Ceramics ● Additives (Al_2O_3,Si_3N_4,ZrO_2)
2. Electric ● Electronics Field ● Additive for Insulation ● Carrier for Catalyst
3. Filler for ● Heat for Resistance Paint

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