

HIGH-PURITY BARIUM CARBONATE

Functional Product Materials

Product Name: High-purity barium carbonate
 Chemical Name: Barium Carbonate
 Chemical Formula: BaCO₃ (molecular weight: 197.34)
 Chemical Substances Control Law (in Japan) No.: 1-78
 CAS No.: 513-77-9

Table 1 PRODUCT DATA.

Grade			LSR	F03	LC1	LC3
Purity *1		%	99.98	99.91	99.99	99.99
Impurities	Na ₂ CO ₃	%	< 0.01	< 0.001	< 0.01	< 0.01
	Fe	ppm	< 1	< 1	< 1	< 1
	Cl	%	0.015	0.085	0.005	0.001
Loss on ignition		%	0.1	1.2	0.8	2.5
Particle Size		μm	1.3	0.3	—*2	—*2
Specific Surface Area (BET)		m ² /g	2	8	12	30

*1 $(100 - (\text{impurity} + \text{ignition loss})) / (100 - \text{ignition loss}) \times 100$

*2 unmeasurable because the shape is acicular

• Applications

Barium carbonate was once used for barium glass such as for cathode ray tube (CRT), barium ferrites, etc., but high-purity barium carbonate has recently been widely used as a raw material for electronic materials.

Barium carbonate is used as a raw material for barium titanate used mainly for multi-layer ceramic capacitor (MLCC) and composite oxides, or as a raw material for PTC thermistors, etc.

It is also used as a raw material for optical glass and sputter glass for semiconductors, and a raw material for a barium component of phosphor materials.

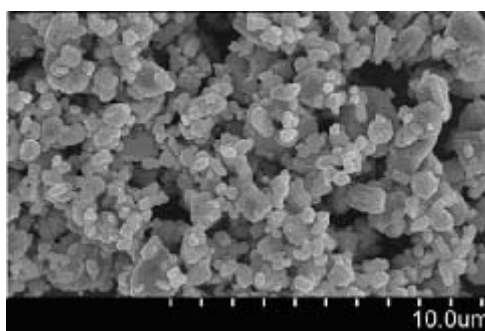


Fig. 1 HIGH-PURITY BARIUM CARBONATE LSR.

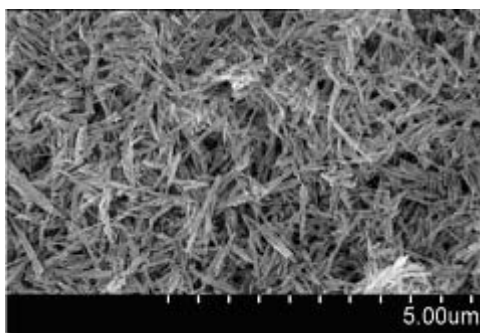


Fig. 2 HIGH-PURITY BARIUM CARBONATE LC3.

Applications for Use

A material and an additive for multi-layer ceramic capacitor (MLCC)

A raw material for barium titanate, a raw material for dielectrics, and a raw material for PTC thermistor materials

A raw material for optical glass, a raw material for barium fluoride, and a raw material for sputter glass

A raw material for fluorescence and phosphorescence

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