

MAGNESIUM CARBONATE

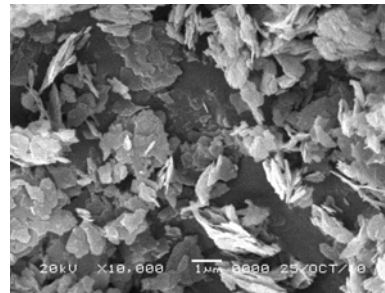
Naikai Salt Industries Co., Ltd. has manufactured and supplied various grades of Magnesium Hydroxide from 1962, and has just started the production of Basic Magnesium Carbonate (BMC) with the initial production capacity of 6,000 ton/year from October, 2010. The consistency production process of BMC via Magnesium Hydroxide by continuous innovation can provides high quality BMC suitable for stringent requirements from diverse fields of chemical, food, cosmetics, footwear and rubber industries

Physical Properties

Trade and Proper Shipping Name : Magnesium Carbonate TT, Magnesium Carbonate TT Food Grade
 CAS No. : Various CAS numbers such as 546-93-0, 14457-83-1, 39409-82-0, 23389-33-5, 7760-50-1, 12125-28-9 are used, depending on country, region, area and industrial field with concerned.
 Chemical Name : Magnesium Carbonate Hydroxide
 Molecular Formula : $x\text{MgCO}_3 \cdot y\text{Mg}(\text{OH})_2 \cdot z\text{H}_2\text{O}$ (x, y and z are integers)
 Molecular Weight : 467.7
 Crystalline : Plate crystal
 Refractive Index : 1.52 - 1.53
 Specific Gravity : 2.1 - 2.2 g/cm³

General Properties

		TT	TT Food Grade*
Appearance	--	White fine powder	White powder
Bulk Density	g/cm ³	0.20~0.25	--
75μm Residue	%	≦ 0.5	--
Ignition Loss	%	54.0~56.0	--
MgO	%	40.0~43.0	40.0~44.0
Fe ₂ O ₃ +Al ₂ O ₃	%	≦ 0.10	--
T-Cl	%	≦ 0.15	--
Insoluble Matter in HCl	%	≦ 0.10	--
Soluble Matter in Water	%	≦ 1.0	≦ 1.0
CaO	%	≦ 0.60	≦ 0.60
Arsenic (As)	μg/g	--	≦ 3
Lead (Pb)	μg/g	--	≦ 2
Clarity of solution	--	--	Very slightly turbid

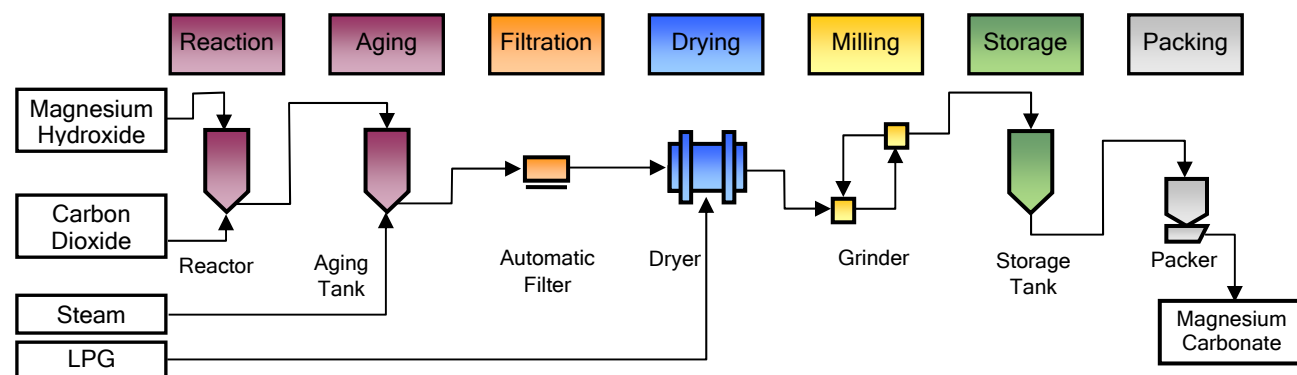


SEM image of BMC

Standard package style is 25 kg paper bag.
 The material of these paper bags is three layered craft.

* Japan's Specifications and Standards for Food Additives

Production Process



Magnesium Carbonate is used for....



Production facilities of BMC

Product Markets

Rubber

Reinforcing filler
 To give the highest transparency to natural rubber
 Antiblocking agent, Stabilizer in the automotive PVC plastisols
 To preserve a colored parts in rubber products
 Fireproofing and heat insulating in manufacture of plastics
 Forming adjuster for foamed EVA

Elastomer

Plastics

Paint

Fillers and anti-misting in manufacture of paint and ink
 Material for pigments
 Deadening in manufacture of paint and ink
 Oil absorbent in manufacture of paper,

Ink

Paper

Food Additives

Anti-caking agent in the cooking salt/powdered drinks
 Enrichment of magnesium for various foods, forming agent for various foods
 Demolding agent in the manufacture of biscuits
 Carbonate source in the soft drinks
 Magnesium source for animal's diet
 Magnesium source in the agricultural materials.

Animal Feedstuffs

Agriculture

Hygiene

Gypsum impressions in dentistry
 A base in talcum powders/baby powders/face powders
 Rheological agent
 Moisture stabilizer in manufacture of soap
 Hold-back agent for fragrant material in manufacture of toothpaste.

Cosmetics

Toiletries

Ceramics & Glass

Matting agent in the manufacture of ceramics
 Molten material for glass,
 Adjuster for permittivity in manufacture of ceramic capacitor
 Magnesium source for the manufacture of catalyst compounds
 Suspending agent in mixing cement, denitrificator in manufacturing of special stainless steel.

Catalysts

Construction

Steel Industry

All information given and recommendations made herein are based upon our research and are believed to be accurate, but no guarantee, either expressed or implied, is made with respect thereto or with respects to infringement of any patent. Products described are sold on the understanding that user is solely responsible for determining their suitability for any purpose. This information is not be copied, used in evidence, released for publication or public distribution without written permission from Naikai Salt Industries Co., Ltd.. (Oct/2010)