

Natural Gypsum



Product Description

Gypsum, the most common construction material, with chemical formula of CaSO_4 , is mostly exploited from ancient sea bed mines. This mineral hardens easily and quickly when mixed with water ($\text{CaSO}_4 + 2\text{H}_2\text{O}$), usually called hydrous calcium sulfate. It is the mineral calcium sulfate with two water molecules attached. By weight it is 79% calcium sulfate and 21% water. Its chemical structure is composed of 23% calcium and 18% sulfur and with 150 times solubility compared with lime stone. These special characteristics make it a proper material with wide range of applications in agriculture, as base fertilizer, construction and other industry sectors, specifically for producing wide range of products, like in medicine, sculpture, decoration, gypsum plasterboard factories and prefabricated gypsum and by-product in many industrial processes. This mineral construction material appears in white and gray colors.

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Physical and chemical specifications

Property	Test Method	Unit	Result
CaSO ₄ ·2H ₂ O Purity	ASTM C471/ISIRI 5029	%	93.05
SiO ₂		%	1.44
Al ₂ O ₃		%	0.48
Fe ₂ O ₃		%	0.130
CaO		%	31.22
MgO		%	1.24
SO ₃		%	43.74
K ₂ O		%	0.22
Na ₂ O		%	0.64
Cl		%	0.015
MnO		%	0.000
P ₂ O ₅		%	0.185
TiO ₂		%	0.022
L.O.I		%	20.66
Free water (Moisture)		%	0.22
Combined water		%	18.76
Size			
0 - 50 mm	-	%	70 - 80
50 - 100 mm	-	%	20 - 30

Common Usage

- Ceiling tiles, paints, jointing compounds.
- Calcined gypsum used as plaster.
- Plasterboard.
- Stucco additive.
- Filler and pigment.
- Glassmaking.
- Chemicals.
- Kitty Litter and Animal bedding.
- Water treatment.
- Sludge drying for stability and odor control.
- Cement production (reduces setting time).
- Water treatment.
- Salty soil treatment.
- Manure treatment.
- Flea powder – Recycled gypsum makes up over 90% of the inert ingredients in flea powders.
- Athletic fields – Gypsum or recycled gypsum is used to mark lines on sports field