Bentonite Specification

Description:

Natural Bentonite is a clay material primarily composed of Montmorillonite with exceptional swelling capacity, adsorption ability, and rheological control properties. It is widely used in drilling fluids, foundry binders, civil engineering barriers, detergents, cosmetics, and agriculture.

Applications:

- Drilling fluids: is used as viscosifier and fluid-loss control agent.
- Foundry industry: binder for molding sands.
- Civil engineering: sealing and lining in construction (geosynthetic clay liners).
- Detergent & cosmetics: absorbent and rheology modifier.
- Animal feed and agriculture: pellet binder and toxin adsorbent.

Packing:

- Palletized bag in container
- 1 m^3 jumbo bags in container

Health and Safety:

- Avoid inhalation of fine dust; use protective masks.
- Store in a dry, covered area to prevent moisture absorption.
- Keep away from acids and oxidizing agents.

Chemical Composition (XRF Analysis)

Component	wt%
SiO_2	70.25
Al_2O_3	12.14
Fe_2O_3	5.00
MgO	2.59
CaO	2.58
Na_2O	3.78
K_2O	0.55
TiO_2	0.08
MnO	0.03

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Component	wt%
L.O.I (Loss on Ignition)	8.50

Physical and Mineralogical Properties

Property	**Specification**
Appearance	Light brown to cream powder
PH (10% slurry)	8.5 – 9.5
Swelling Index (API 13A)	≥ 30 ml/2 g
Moisture Content	≤ 12%
Bulk Density	0.8 – 1.0 g/cm³
Montmorillonite Content	≥ 75%
Exchangeable Cations	Na^{+} / Ca^{2+}

Bentonite Raw & Powder	**Applications**
	

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