



# 03 BENTONITE



## PRODUCT DESCRIPTION

Natural Bentonite is a clay mineral 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.

## CHEMICAL COMPOSITION (XRF ANALYSIS)

COMPONENT	wt%
SiO <sub>2</sub>	70.25
Al <sub>2</sub> O <sub>3</sub>	12.14
Fe <sub>2</sub> O <sub>3</sub>	5.00
MgO	2.59
CaO	2.58
Na <sub>2</sub> O	3.78
K <sub>2</sub> O	0.55
TiO <sub>2</sub>	0.08
MnO	0.03
L.O.I (Loss on Ignition)	8.50

## PHYSICAL & MINERALOGICAL PROPERTIES

PROPERTY	SPECIFICATION
Appearance	Light brown to cream powder
pH (10% slurry)	8.5 – 9.5
Swelling Index	≥ 30 ml / 2 g
Moisture Content	≤ 12%
Bulk Density	0.8 – 1.0 g/cm <sup>3</sup>
Montmorillonite Content	≥ 75%
Exchangeable Cations	Na <sup>+</sup> / Ca <sup>2+</sup>

## APPLICATIONS

- DRILLING FLUIDS**  
Used as viscosifier and fluid-loss control agent in water and oil-based drilling fluids.
- FOUNDRY INDUSTRY**  
Used as a binder for molding sands and core making.
- CIVIL ENGINEERING**  
Used in sealing and lining applications such as geosynthetic clay liners.
- DETERGENTS & COSMETICS**  
Used as absorbent and rheology modifier in various formulations.
- ANIMAL FEED & AGRICULTURE**  
Used as pellet binder, carrier and toxin adsorbent in animal feed and agriculture.

## AVAILABLE FORMS



LUMP BENTONITE



GRANULAR BENTONITE



POWDER BENTONITE

## PACKAGING

- 25 kg Bags
- 1000 kg Jumbo Bags
- 1300 kg Jumbo Bags



DRILLING FLUIDS



FOUNDRY



CIVIL ENGINEERING



COSMETICS



AGRICULTURE