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TECHNICAL DATA SHEET

SODIUM BENTONITE

USES

SODIUM BENTONITE is used for drilling mud, binder (foundary-sand bond, iron ore pelletizer), purifier, absorbent (pet litter) and as a groundwater barrier. It is also used as a filler and as an ingredient in proprietary formulations in adhesives, grouts and mortars.

PRODUCT DESCRIPTION

SODIUM BENTONITE is an absorbent aluminium phyllosilicate; essentially impure clay consisting mostly of montmorillonite: $(\text{NaCa})_{0.3}(\text{AlMg})_2 \cdot \text{Si}_4\text{O}_{10}(\text{OH})_n(\text{H}_2\text{O})$

PHYSICAL PROPERTIES

Colour:	Brown
pH (5 % in H₂O):	10 – 10.5
Bulk density:	0.9 – 1.05 g/cm ³
Moisture:	<12%
Sieve grading (106 micron):	<5% retained
Sieve grading (75 micron):	<15% retained
Swelling volume:	22-26ml/2g
Water absorption:	>500%
Viscosity:	25sec
Cation Exchange capacity	>75meq/100g (H ₂ SO ₄ method)

CHEMICAL PROPERTIES

Chemical %	
SiO ₂	50.0
Al ₂ O ₃	18.8
CaO	5.7
Fe ₂ O ₃	6.7
MgO	3.6
Na ₂ O	2.9
LOI	11.2

TYPICAL MINERALOGY

Mineral %	
Calcite	4
Quartz	4
Smectite	>65
Kaolinite	3
Plagioclase	3

PACKAGING

40kg paper bags
1000kg bulk bags

STORAGE

Must be stored in a moisture-free zone.