

**DATSON**B U I L D I N G
M A T E R I A L S**Technical Datasheet**

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**Bentonite Powder
DBM-EZP (API)****Product Features**

Bentonite is a natural clay mineral with excellent water absorption, swelling, and binding properties. It is widely used in drilling mud, construction sealants, and foundries due to its fine particle size, high cation exchange capacity, and thermal stability, making it indispensable in various industries.

Technical Specifications**Chemical Analysis**

SiO ₂	60.70%
Al ₂ O ₃	14.34%
Na ₂ O	3.26%
MgO	4.04%
K ₂ O	0.56%
TiO ₂	0.66%
MnO	0.02%
CaO	0.80%
P ₂ O ₅	0.08%
Fe ₂ O ₃	2.56%
SO ₃	0.07%
LOI (Loss on Ignition)	12.10%

Physical Properties

Viscometer dial reading at 600 rpm	33 r/min
Viscometer dial reading at 300 rpm	26 r/min
Plastic viscosity (PV) = R600 - R300	7 CP
Yield point (YP) = R300 - PV	27 lb/100 ft ²
YP / PV Ratio	3.00 ib/100 ft ² /cp
Fluid Loss	14 ml
Moisture Content	8.5 %
Residue > 75 micrometers	2.5 w.t.%

Product Variants

Bentonite comes in several specialized grades to meet industry needs. OCMA grade is used for standard drilling, following Oil Companies Materials Association standards. High-yield bentonite offers superior swelling for advanced drilling and grouting. Absorption grade is ideal for applications requiring high water and oil absorption, like cat litter. API grade meets the American Petroleum Institute standards, ensuring quality for oil and gas drilling. Casting grade is designed for foundries, providing excellent moldability and heat resistance.

Packaging Information

Bentonite Powder is normally supplied in 25 Kg bags inside 1 MT jumbo bags, but it can also be customized based on customer's requirements. All packaging is designed for easy handling, storage, and transportation, ensuring the product remains dry and protected from moisture. It can also be supplied in lump shape, if required.

Application and Usage

Bentonite has the variety of applications in different industries such as;

- >> Oil and Gas Industry; Bentonite is used in drilling fluids to lubricate and cool the drill bit, maintain well stability, and prevent fluid loss.
- >> Foundry; Bentonite is used in foundries for molding sand, ensuring strength and thermal stability during metal casting.
- >> Bentonite helps in water treatment, soil stabilization, and waste containment by absorbing contaminants.
- >> Construction: In construction, bentonite is used for drilling, slurry walls, and as an additive in cement to enhance performance.
- >> Petroleum Refining: Bentonite aids in the refining process by acting as a catalyst and a filtration aid in lubricants and oils.
- >> Agriculture: Bentonite improves soil properties, retains water, and enhances plant growth in agricultural applications.

Safety Data

Bentonite is generally considered safe when handled properly, but safety precautions should still be followed. It can cause mild irritation to the eyes, skin, and respiratory system if exposed to dust. It is recommended to wear protective gear such as gloves, safety goggles, and a dust mask when handling bentonite. In case of eye contact, rinse immediately with water for at least 15 minutes. If inhaled, move to fresh air and seek medical attention if symptoms persist.

Warranty

DATSON Building Materials warrants that the product supplied meets the specified quality and performance standards as outlined in this datasheet. We guarantee that the material is free from defects in manufacturing and workmanship. For warranty claims, please retain proof of purchase and contact our customer service team.

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The information provided in this datasheet is based on current knowledge and is intended to describe the product and its possible applications. DATSON Building Materials makes no guarantees regarding the accuracy or completeness of this information and assumes no liability for any damages resulting from the use of the product in any manner that is inconsistent with its recommended guidelines. It is the responsibility of the user to ensure that the product is suitable for the intended application and to comply with all applicable regulations and standards. Product specifications are subject to change without notice.