HEXAGON INDUSTRIAL

Technical Data Sheet

HEXAGEL DFS

REGULAR API GRADE BENTONITE

MULTIPURPOSE + ECONOMICAL + COST EFFECTIVE

HEXAGEL DFS Description

HEXAGEL DFS is a premium-grade 200-mesh sodium montmorillonite bentonite designed to meet the specifications of API 13A, Section 9. It is expertly formulated as a high yield viscosifier and filtration control agent for water-based drilling fluids, delivering consistent and reliable performance across a wide range of drilling environments.

While engineered for the demanding requirements of oilfield drilling, HEXAGEL API13A also finds extensive application in hydraulic barriers, construction, and various geotechnical and environmental projects, pond sealings offering versatility and dependable functionality in critical infrastructure and subsurface conditions.

HEXAGEL DFS Key Features and Benefits

HEXAGEL DFS provides a versatile range of functions and applications, particularly in the drilling industry. As a key component in water-based drilling fluids, **HEXAGEL DFS** acts as both a viscosifier and filtration control agent, commonly used by mud service companies in oil, gas, and water well drilling operations.

HEXAGEL DFS Key Advantages:

- Enhances hole cleaning by improving the carrying capacity of the drilling fluid
- Stabilizes boreholes, especially in loosely consolidated or reactive formations
- Reduces filtration losses by forming a thin, low-permeability filter cake
- Efficient performance due to high viscosity and gel strength, allowing for lower dosage rates

With its consistent quality and performance, **HEXAGEL DFS** is an ideal choice for drilling operations that demand reliability, efficiency, and cost-effectiveness.

HEXAGEL DFS Performance in Drilling Fluids

- Gel Structure Formation: Effectively builds a gel-like structure in drilling muds, aiding in the suspension of cuttings and weighting materials.
- Direct Use in Freshwater Fluids: Can be added directly to freshwater systems without requiring extensive pre-treatment.
- Enhanced Lubrication: Provides natural lubrication that reduces friction and wear during drilling operations.
- Filtration Control: Forms a thin, low-permeability filter cake that minimizes fluid loss.

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HEXAGEL DFS Typical Properties

Parameter	Unit	API 13A Sec 9 Requirement	HEXAGEL API 13A
Appearance			Fine grey Powder
Viscometer dial reading @ 600 rpm	–	Min 30	35
Specific gravity			2.45-2.55
Bulk density	kg/m3		800-1150
Yield point / Plastic viscosity (YP/PV)	Ratio	Max 3	2.5–3.0
Filtrate volume (API fluid loss)	mL	Max 15	14.5
Residue >75 µm (No. 200 sieve)	% by weight	Max 4	Max 3.5%
pH (6% Suspension)			9-11
Moisture content	% by weight	Max 10.0	Max 10.0

HEXAGEL DFS Chemical Properties

SiO2	55-58%	MgO	2.1-2.5%
Al2O3	16-18%	CaO	1.9-2.1%
Fe2O3	5-7%	K2O	0.3-0.5%
Na2O	3.6-4%	TiO2	1.2-1.5%
LOI	11-12%	CEC	80 meq/100g

HEXAGEL DFS Storage Recommendation and Shelf Life

Store in cool and dry place. Product has shelf life of 2 years from the date of manufacturing.

HEXAGEL DFS Packaging

HEXAGEL DFS Bentonite is packaged in 1.25 MT /1.0 MT Jumbo bags with inner Liner or 50 Kg/25 Kg or 100Lbs/50 Lbs bags. If any customized packaging is required, the same is also available.

HEXAGEL DFS Product Safety, Handling and Storage

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, emergency service contact information, and any special storage conditions required for safety.
MSDS is available upon request by contacting Hexagon Industrial directly.

Limitations

Customers must evaluate Hexagon products and make their own determination of suitability of their requirements.

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