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Technical Data Sheet

PAC-HV ^{LUDE} TM

FILTRATION CONTROL ADDITIVE

Product Name : High-viscosity Polyanionic Cellulose

Product Description

PAC-HV ^{LUDE} is a high quality Poly Anionic Cellulose Polymer, useful in controlling filtration and increasing rheology in all type of water, but is particularly effective in salt water brines. PAC-HV ^{LUDE} additive will aid in dispersion control by attaching and encapsulating the drill solids. It may be used at all density ranges, and functions effectively in dispersed and non-dispersed systems.

Typical Physical Properties

- | | |
|-----------------------|---------------------------------------|
| ➤ Physical appearance | White or creamish free flowing powder |
| ➤ Specific gravity | 1.5-1.6 |
| ➤ Solubility | Soluble |
| ➤ Bulk density | 500-900 kg/m ³ |

Application

- Provides protection against water sensitive hydrate-able formations
- Improves core recovery in diamond drilling
- Can be used with bentonite, liquid polymer, with other products or as a single mud additive
- Can be used in fresh, brackish and salt water
- PAC is cost effective means of controlling fluid loss and increasing viscosity
- It's a water soluble polymer
- Control filtration rates
- Provide supplementary viscosity in fresh water, sea water, and brine-based fluids

Advantages

- Reduces friction between the drill string and the open hole
- May be used in all types of water base muds and salinity
- Decreases torque and drag

- Has application in deviated and extended reach wells
- Has high temperature stability up to 350 °F
- It is a high yield viscosifier
- It is resistant to ions and is effective over a wide PH range
- Improves shale control
- It is an excellent thermal stability
- Can be used to increase life of foam in air
- Resists attack from bacteria, requiring no preservatives or bactericide
- Effective in controlling fluid loss
- Environmentally acceptable
- Depending on water quality, provides viscosity

Packaging and Storage

PAC-HV ^{LUDE} filtration control additive is packaged in 25 kgs kraft bags.

Store in a dry location away from sources of heat or ignition, and minimize dust.

Product Technical Parameters

Item		Range
Exterior		White or creamish free flowing powder
Presence of starch or starch derivatives		Absent
D.S. Corrected for Moisture and Salt		≥0.90
Purity, %		≥96.0%
PH Value 1%		6.0-8.5
Moisture Content		≤ 8.0
Saturated Salt Water Solution	Apparent Viscosity	≥50 cPs
	Yielding Point	≤ 5.0
Fresh Water Solution	Apparent Viscosity	≥50 cPs
	Yielding Point	≤ 5.0
API Filtrate Volume (ml)		≤ 23
Particle size (sieving)		≥95% (pass through 100 mesh)