PHPA

Shale Inhibitor

Description

PHPA (Partially Hydrolyzed Polyacrylamide) is a high molecular weight, 100% active dry powder polymer used to suppress hydration and dispersion of water sensitive clays in water-base drilling fluids. Also helps to remove dispersed solids by making them mechanically removable through encapsulation. Suitable for use up to 149°C in fresh water, and monovalent brines.

Applications/functions

- Helps to keep water-sensitive formations stable.
- Provides cuttings encapsulation, limits cuttings dispersion and enhances drill solids removal.
- Decreases tendencies of bit-balling.
- Helps to provide mud lubricity in low pressure conditions.
- Helps to enhance the yield of bentonite clays in low solids drilling fluid systems.

Advantages

- Does not require biocides being non-fermenting.
- Stable in monovalent salt environments.
- Effective in small concentrations.
- Can be destroyed with oxidizing agents when desired.

Typical properties

• Appearance	White powder
• Specific gravity	1.05 g/cm3
• pH, (1% aqueous solution)	6-8

Recommended treatment

Add 0.7-4.5 kg/m³slowly through the hopper. In order to avoid circulation pressure spikes, pre-mix the product in water, allow to fully hydrate, then slowly bleed into circulating system.

High pH environments (> 10.5) can cause hydrolysis, particularly at elevated temperatures, and should be avoided.

Package

PHPA is packaged in 25 kg sacks.