PHPA – LOW TEMPERATURE

SHALE STABLISERS

INSH 5000 – PRODUCT DATA SHEET

INDUSUN FLUIDS
INDUSUN DRILLING FLUIDS PVT. LTD.

Description

PHPA – a shale inhibitor and rheology modifier – is a high molecular weight anionic polyacrylamide, designed primarily to provide shale stability and viscosity in water-based drilling fluids. Dry PHPA powder disperses rapidly without balling or fish eyes. The product maintains borehole stability by preventing shale swelling and erosion. Low temperature PHPA is stable up to 110°C.

Application

PHPA can be used as a shale inhibitor and rheology modifier in freshwater, seawater and sodium or potassium chloride brines, and is very effective in sweeps to aid in hole cleaning.

Advantages

- Functions as an inhibitor by coating or encapsulating formation & cuttings
- Restricts the interaction of water hydratable & dispersible shale
- Can be used as a flocculent in clear water drilling
- High viscosity helps in better removal of cuttings from bore hole
- Resistant to bacterial degradation

Specifications

S.No.	Parameter	Specification
1	Physical State	Free flowing powder, free from lumps and visible impurities
2	Moisture content at 105±2°C, percent by mass	7 (Maximum)
3	Ionic Character	Anionic
4	Relative Dispersibility *of Bentonite pellets in 0.2% (w/v) polymer solution at 60±5°C with respect to distilled water*	175 (Maximum)
5	Degree of Hydrolysis, as determined by electrometric titration, percent by mass	20.0 to 40.0
6	Apparent Viscosity *of 0.2% (w/v) polymer solution in distilled water at 24±2°C, cP*	9 (Minimum)
7	Apparent Viscosity *(at 24±2ºC) of 0.2% (w/v) polymer solution after ageing at 110±2°C for 18 hrs. cP*	Not less than 80% of the value obtained without ageing
8	Apparent Viscosity *of 4 cP Bentonite suspension with 0.2% (w/v) polymer concentration at 24±2°C and pH 9.0, cP*	15 (Minimum)
9	Apparent Viscosity *(at 24±2ºC) of 4 cP Bentonite Suspension with 0.2% (w/v) polymer concentration after ageing at 110±2°C for 24 hrs., cP*	Not less than 80% of the value obtained without ageing
10	Apparent Viscosity *of 0.4% (w/v) polymer solution in distilled water in presence of 100 ppm Ca++ at 24±2ºC, cP*	Not less than 60% of the value obtained without Ca++ treatment

Packaging

25 Kgs pre ply kraft paper bag. Customized packaging is available on request.