



Technical Datasheet

DRILLING STARCH

Description

Drilling Starch is a high-quality grade of pre-gelatin starch that is widely used in water-based mud systems to minimize fluid loss and forming thin filter-cake in wellbore surface. Drilling Starch is a non-ionic natural polymer which may be used in low-saline to high-saline waters. Drilling Starch is environment-friendly and easily removeable by acids or oxidizers.

Application

Main function of Drilling Starch is lowering filtration properties in water-based muds in order to minimize water loss, formation damage and possibility of unwanted changes in drilling fluids' parameters.

Advantages

- Cost-effective comparing other filtration agents
- Forming high quality filter cake on wellbore walls
- provides excellent filtration characteristics.
- Compatible with most types of regular water-based muds
- Compatible with sea water and brackish water
- Stable up to 250°F
- Compatible with sodium chloride, potassium chloride and other common salts in industry
- Environment-friendly
- Applicable in wide range of pH

Limitations

- Degrades in temperatures more than 250°F
- Less effective in high-calcium environments

Treatment

Dependent to quality of make-up water and required filtration properties, normal concentrations for Drilling Starch ranges from 5 to 12 lb/bbl (14-33.6 Kg/M³) in polymeric muds. It should be added slowly through rig hoppers. The Drilling Starch effect will be highly elevated when it is used alongside other drilling filtration agents such as PAC LV. Treatments must be performed on an incremental basis to prevent any overtreatment and cost increment. Adding little amount of biocide to minimize degradation rate is advised.

Typical Properties

APPEARANCE	Light tan powder
SPECIFIC GRAVITY	1.5
pH (1% Solution)	6 +/- 1
Bulk density	600 – 700 kg/m ³
API Filtration properties	5.8 cc/30min (in 40 gr/l salt water) 5.2 cc/30min (in saturated salt water)
Solubility in water	Soluble

Packaging

Drilling Starch is available in 25-KG SXS.