

INFORMATION

POLYTHERM-FX

THERMOSTABLE DRILLING POLYMER

DESCRIPTION

POLYTHERM-FX is a synthetic copolymer of medium molecular weight which displays excellent thermal stability and contaminant resistance, in conjunction with a high level of performance in aqueous drilling fluids under extreme drilling conditions. The polymer utilizes proprietary sulfonate chemistry.

APPLICATION

POLYTHERM-FX finds primary application as a rheological stabilizer and filtration control additive for aqueous drilling fluids. Specific application is in fluids exposed to high temperatures and/or significant levels of contamination in the forms of calcium, magnesium and various salts. The product is especially useful in brine drilling fluids, tolerating saturation in monovalent brines (Na⁺, K⁺), and up to approximately 100,000 mg/L of divalent salts such as calcium chloride and magnesium chloride.

Thermal stability approaches 450° F (232° C) in drilling fluids. POLYTHERM-FX also appears to act successfully to extend the thermal tolerance of cellulose polymers and starch-based products, or to work synergistically with these products to allow good levels of performance using a cost-effective combination of celluloses or starches in conjunction with relatively low doses of POLYTHERM-FX.

RECOMMENDED TREATMENT

Dosage may range from 1 to 6 lbs/bbls (2.9 to 17.1 kg/m³) in fluids treated primarily with POLYTHERM-FX, or as low as 0.3 to 1.0 lbs/bbl (0.9 to 2.9 kg/m³) when POLYTHERM-FX is used as an extender for CMC or starch. A polymeric deflocculant such as POLYSPERSE-XHT or THERMO-THIN-S may be used in conjunction with POLYTHERM-FX to control viscosity and gel strengths as required. Messina's high temperature POLYTHERM SYSTEM brochure is available on request.

HANDLING

Normal precautions for handling powdered polymers should be observed. Avoid breathing dust, as it may irritate mucous membranes. Wash off skin as soon as possible. Although this product is not believed to be toxic to any great degree, its toxicological characteristics have not been fully investigated.

PACKAGING

POLYTHERM-FX is packaged in 25 kg multi-layer bags with moisture barrier.

POLYTHERM-FX is a Messina trademark