HT RM-100

High-Temperature Low End Rheology Modifier

Product Description

HT RM-100 is an advanced rheology modifier specifically formulated for **water-based drilling fluids** used in **ultra-high temperature, high-pressure, and ultra-deep wells** (both vertical and horizontal). Designed to deliver **exceptional low-end rheology control**, this polymer combined with other components enhances the viscosity of drilling fluids, ensuring optimal **hole cleaning and cuttings suspension** under extreme conditions.

With excellent stability in **freshwater and high-salinity brines**, HT RM-100 provides **superior shear-thinning properties**, making it an essential additive for maintaining low-end gel strengths in challenging drilling environments.

Advantages

- **Free-flowing dry powder** for easy handling and mixing
- **High salinity tolerance** – effective in brine concentrations up to **150,000 mg/L**
- **Low application dosage (0.5–1.5%)** for cost-effective viscosity control
- **Environmentally friendly** formulation with minimal ecological impact
- **Superior thermal stability** – remains effective at temperatures up to **240°C (464°F)**
- **Works synergistically** with other rheology modifiers and fluid additives for optimized drilling performance

Applications/Recommended Treatment

HT RM-100 is designed to optimize **the low-end rheology parameters** of high-performance **water-based drilling fluids** in **ultra-deep, high-temperature, and high-pressure wells**. It effectively controls viscosity, enhances hole cleaning, and reduces the risk of wellbore instability.

This product is ideal for:

- **High-temperature, high-pressure (HTHP) drilling operations**
- **Freshwater and high-salinity brine drilling fluids**
- **Low-end rheology control in ultra-deep wells**
- **Drilling operations requiring effective cuttings suspension and fluid stability**
- **Applications using specific gravities up to 2.0**

HT RM-100 is engineered to **create and maintain viscosity at the critical low-end rheology points**: **6, 3, 10' & 10" gel strengths**. It ensures proper hole cleaning and prevents sagging by keeping cuttings suspended efficiently, even in high-temperature and high-salinity environments.

Recommended treatment levels vary depending on **total hardness, solids content, and temperature conditions**, with typical concentrations ranging from **0.5–1.5% by weight**.

Typical Properties

- Appearance: White solid powder
- Product Activity: >95%
- Product Viscosity: 50–100 cP @ 1% solution
- Maximum Temperature Stability: 240°C (464°F)

Packaging and Storage

HT RM-100 is available in 25-pound bags for convenient handling and transport. To maintain product quality and effectiveness:

- Store in a dry, cool, and well-ventilated area
- Keep container lids securely closed when not in use to prevent contamination and moisture absorption
- Store in original packaging to preserve integrity and extend shelf life

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