

HT CAP-100

High-Performance Encapsulator for Extreme Drilling Conditions



Product Description

HT CAP-100 is a **high-performance encapsulator** engineered for **water-based drilling fluids** in **high-temperature, high-pressure (HTHP), and ultra-deep wells**—whether **vertical or deviated**. This **synthetic polymer in an inverse emulsion** delivers **exceptional shale inhibition and cuttings encapsulation**, ensuring **maximum wellbore stability** in extreme drilling environments.

Key Features & Benefits

- **Cuttings Encapsulation:** Effectively reduces cuttings dispersion, enhancing drilling fluid performance.
- **Ultra-High Molecular Weight** – Exceeds 10 million, ensuring superior performance in extreme drilling conditions.
- **Exceptional Calcium & Magnesium Tolerance** – Maintains stability even in high Ca²⁺ and Mg²⁺ environments.
- **Fast-Acting & Easy to Use** – Liquid inverse emulsion formulation for effortless pumping and rapid dissolution.
- **Low Dosage, High Efficiency** – Requires just 0.1% product for effective results.
- **Minimal Impact on Rheology** – Low viscosity ensures drilling fluid properties remain optimized.
- **Eco-Friendly** – Designed with environmental compliance in mind.
- **High-Temperature Stability** – Performs in temperatures up to 375°F (190°C).

Applications & Recommended Treatment

HT CAP-100 is designed for use in high-performance water-based drilling fluids, providing superior shale inhibition and cuttings stability across various drilling conditions.

Recommended Treatment Guidelines:

- **Shale Stability Optimization:** Adjust dosage based on shale lithology, typically ranging from **0.35–5 lb/bbl (1–14 kg/m³)**.

- **Wellbore Integrity Support:** Works in synergy with **shale inhibitors, sealing agents, and lubricants**, which should be alternately added to maintain optimal drilling fluid properties.

Ideal for **unconventional formations, directional drilling, and extended-reach wells**, HT CAP-100 delivers **consistent performance and enhanced drilling efficiency**.

Technical Specifications

- Appearance: Off-white liquid
- Polymer Activity: 28–32%
- Viscosity: 300–1500 cP
- Pour Point: < -20°F (-29°C)
- Water Solubility: Highly soluble

Packaging, Storage & Handling

- 265 Gal (900Kg) totes (IBCs) or 55Gal (180Kg) drums
- Keep HT CAP-100 in its original container when not in use.
- Store in a dry, cool, and well-ventilated area with lids securely closed.
- Protect from extreme temperatures to maintain product integrity.

