

CYBERVIS™ DW50

RHEOLOGY MODIFIER



PRODUCT DESCRIPTION

CyberVis™ DW50 rheology modifier is an organic polymer viscosifier, specifically designed to provide a consistent rheological profile in CyberDrill® synthetic-based invert-emulsion drilling fluids in deepwater applications.

BENEFITS

- Exhibits shear thinning for enhanced ROP
- Performs optimally in CyberDrill synthetic-based (isomerized olefin) fluid
- Tolerates contaminants, including salt, high lime, cement and drill solids
- Provides efficient hole-cleaning and barite suspension for sag control
- Requires less organophilic clay

APPLICATION

CyberVis DW50 rheology modifier is particularly effective in the reduced temperatures of deepwater applications requiring a riser. The polymer provides cost-effective ECD control by maintaining a consistent rheology in a wide temperature range, from 40°F (4°C) at the riser to above 325°F (163°C) at bottomhole.

TREATMENT RECOMMENDATION

Although this polymeric viscosifier may be used with or without organophilic clay, a combination of CyberVis DW50 rheology modifier with a limited concentration of organophilic clay is recommended to provide consistent rheology at elevated bottomhole temperatures as well as in cool riser environments. The concentration requirements vary with factors including oil:water ratio (concentration requirement increases with higher O:W ratio), fluid density (requirements decrease with high fluid density) and surfactant concentration of the system. Typical concentrations range from 0.25-2.5 lb/bbl (0.03-0.32 gal/bbl). Recommended organophilic clay concentrations range from 2-5 lb/bbl. Care must be exercised when reduced concentrations of organophilic clay are maintained due to possible increases in HPHT fluid losses. Pilot testing is strongly recommended.

- **Deepwater Consistent Rheology Formulation:** Use 1:1-1:2 lb/bbl ratio of CyberVis DW50 polymer to organophilic clay.
- **Hole Cleaning Sweeps:** Add between 0.2-0.5 lb/bbl of CyberVis DW50 polymer to systems containing standard organophilic clay concentration to achieve effective sweep properties.
- **Dilution Consistent Rheology:** Use as required to maintain viscosity of CyberDrill systems while diluting with synthetic base fluid.

CyberVis DW50 may be added at the mud plant when building new drilling fluids or added directly to the mud pits while drilling. Adequate agitation is required; mixing through the hopper is recommended.

TYPICAL PHYSICAL PROPERTIES

Appearance Amber, viscous liquid
Flash Point 212°F (100°C)
Specific Gravity 0.95 (7.9 lb/gal)

HANDLING AND STORAGE

Avoid contact with skin and eyes as this material can cause harm, including corneal injury. Do not use air pressure to transfer. Avoid contact with metals containing copper. Store in a cool, dry, well-ventilated area away from ignition sources and strong oxidizing agents. Use appropriate hygiene, clothing and personal protective equipment suitable for work being done. Review the SDS thoroughly before using this product.

PACKAGING

CyberVis DW50 rheology modifier is available in 5-gallon (19-liter) pails.