

FLO-PLEX PLUS

Fluid loss control additive

APPLICATIONS

- Fluid loss control agent for the DRILPLEX AR PLUS* anionic-tolerant water-based drilling fluid system

ADVANTAGES

- Tolerant to electrolytes
- Positive synergy with GELPLEX* water-based complexing agent to stabilize the rheology of the DRILPLEX AR PLUS system
- Exhibits enhanced low-shear rheology when used in conjunction with xanthan gum polymer.
- Resistant to attack from bacteria
- Stable up to 275 degF [135 degC] without the need to use thermal extension additives
- Effective in seawater fluids if hardness is treated out before the FLO-PLEX PLUS* fluid loss control additive is introduced

LIMITATIONS

At higher polymer concentrations (14–17 kg/m³), care must be taken not to program too high levels of GELPLEX agent (or xanthan gum in other water-based systems).

FLO-PLEX PLUS additive is a polysaccharide derivative used to control filtration in the DRILPLEX AR PLUS system. Traditional fluid-loss-control additives tend to destroy the elevated low-end rheology that makes mixed-metal oxide (MMO) systems unique. FLO-PLEX PLUS additive was specifically developed to remedy this, but is known to be sensitive to increasing salt concentration. This additive has now been developed to address this deficiency, and is particularly suited for application in the DRILPLEX AR PLUS system that uses potassium salts for increased inhibition of formation clays and shales. FLO-PLEX PLUS additive will provide fluid loss control with minimal effect on rheology up to 275 degF [135 degC].

When preparing new fluid, FLO-PLEX PLUS additive should be added at concentrations of 4 lb/bbl [11.4 kg/m³]. Higher treatment levels of 5.0 to 6.0 lb/bbl [14.3 to 17.1 kg/m³] should be pilot tested and the GELPLEX agent or primary polymeric viscosifying polymer concentration adjusted accordingly.

FLO-PLEX PLUS additive will not destroy the elevated low-end rheology of these specific fluids, as is observed with conventional anionic fluid loss control agents. Laboratory studies have shown that there is a positive synergy between FLO-PLEX PLUS additive and GELPLEX agent, which can further stabilize the rheology of the DRILPLEX AR PLUS system. FLO-PLEX PLUS additive may be used in any other type of fluid where starches and cellulose additives are permitted.

Toxicity and handling

Bioassay information is available upon request. Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the SDS.

Packaging and storage

FLO-PLEX PLUS additive is packaged in 55-lb [25-kg] 5-ply paper sacks with waterproof liner. Store in a dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping, or stacking.

Typical Physical Properties

Physical	White powder
Bulk density	38 to 50 lb/ft ³
pH	10.5–11.5
Solubility in water	Dispersible
Bulk density	38–50 lb/ft ³ [610–800 kg/m ³]