



BAROID CLAY-DRILL™

Polymer-Based HDD Fluid

Description CLAY-DRILL™ is a single sack product designed for HDD applications where sacrificial fluids are the preferred system of choice. CLAY-DRILL polymer-based HDD fluid is designed to provide borehole stabilization, counteract the sticking tendencies of clay and maximize clay/shale inhibition without the need for additional additives.

Applications/Functions *The use of CLAY-DRILL polymer based HDD fluid assists and promotes the following:*

- Clay and shale stabilization to reduce swelling and/or disintegration
- Viscosity development in fresh water drilling fluids
- Enhanced lubricity for reduction of rotational torque and drag
- Reduction of the ability of clay or shale to adhere to bit, reamer and drill string
- Development of a “clay-free” drilling fluid

Advantages

- Single-sack product, reduces the number of products on-site
- NSF/ANSI Standard 60 certified
- Effective in low concentrations
- Easy to mix

Typical Properties

Appearance	White to off-white granules
Bulk Density, lb/ft ³ , (kg/m ³)	41.9 – 49.9, (671-799)
pH (0.25% Aqueous Solution)	8.5 to 9.0

Recommended Treatment

- Reduce total hardness of make-up water by adding soda ash (sodium carbonate) at 0.5 to 1 pound per 100 gallons (0.6-1.2 kg/m³) of make-up water.
 - 1.) Using a Venturi hopper or into the vortex of a prop mixer, add the appropriate amount of CLAY-DRILL polymer-based HDD fluid, slowly and uniformly to the entire circulating system or mix tank and allow to mix for no longer than five minutes to ensure uniform dispersion and water wetting of the polymer.
 - 2.) Stop all mixing and shut down the system allowing the polymer fluid to remain static for 20 minutes.
 - 3.) Re-start the mixing system and homogenize the resulting polymer fluid by mixing the fluid for the time required to achieve one complete circulation of the total volume mixed. This timeframe should not exceed five minutes.

Approximate Amounts of CLAY-DRILL Polymer-Based HDD Fluid Added to Develop a Clay-Free Drilling Fluid System		
lbs/bbl	lbs/100 gallons	kg/m ³
0.3 – 0.7	0.7 – 1.7	0.85 – 2.0

Note:

- Be sure to mix no longer than one complete circulation of the total volume prepared in order to reduce potential of shear degradation.
- When the centrifugal pump from the mixing system is used to “charge” the rig pump for the purposes of improving efficiency, it is recommended to reduce the speed of the mixing pump to an idle so as not to incur excessive shear degradation of the polymer fluid during active drilling operations.
- The above are generalized concentrations of CLAY-DRILL polymer - based HDD fluid for the development of a water-based drilling fluid. The ultimate usage concentration will be based on local geology, application and mixing efficiency. In the event that questions arise or additional information is required please contact your local Baroid IDP representative for further assistance.

Packaging CLAY-DRILL polymer-based HDD fluid is packaged in 20-lb (9-kg) and 40-lb (18-kg) plastic containers with re-sealable lids.

Availability CLAY-DRILL polymer-based HDD fluid can only be purchased through Baroid Industrial Drilling Products Retailers. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.