



BORE-GEL®

Boring Fluid System – U.S. Patent Number 5,723,416

Description BORE-GEL® single sack, boring fluid system is specially formulated for use in horizontal directional drilling (HDD) applications. BORE-GEL fluid system is a proprietary blended product using high-quality Wyoming sodium bentonite. When BORE-GEL system is mixed with fresh water, it develops an easy-to-pump slurry with desirable fluid properties for HDD.

- Applications/Function**
- Provide optimum gel strength with minimum viscosity for cuttings suspension and transport
 - Improve borehole stability in poorly consolidated/cemented sands and gravel formations
 - Reduce filtration by forming a thin filter cake with low permeability
 - Lubricate pipe in microtunneling operations
 - Produce a pumpable slurry with maximum amount of reactive solids for borehole stability

- Advantages**
- Minimizes the number of boring fluid products required
 - Easy to mix and fast to yield
 - Low viscosity minimizes pump pressures
 - Provides lubricity for pulling product line
 - NSF/ANSI Standard 60 certified
 - Can be used in Water Wells in unconsolidated formations or when additional gel strengths are required to compensate for low annular velocity

Typical Properties

• Appearance	Tan to gray powder
• pH (4% slurry or 15 lb/bbl)	10.2
• Bulk density, lb/ft ³	68 to 72 (compacted)

Recommended Treatment Add slowly and uniformly through a high-shear, jet-type mixer over one or more cycles of the volume of slurry. Continue to circulate and agitate the slurry until all unyielded bentonite is dispersed.

Recommended application amounts

Boring Application	lb/100 gal	kg/m³
Normal boring conditions	25 – 35	30 – 42
Poorly consolidated sand/gravel	35 – 60	42 – 72
Lubrication fluid for microtunneling	50 – 60	60 – 72

Packaging BORE-GEL fluid system is packaged in a 50-lb (22.7-kg) multiwall paper bag. The bag is sturdy, moisture resistant and easy to handle, store and transport.

Availability BORE-GEL fluid system can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

**Baroid Industrial Drilling Products
Product Service Line, Halliburton**

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