



# POLY-BORE™

## Borehole Stabilizing Dry Polymer

**Description** POLY-BORE™ stabilizing agent is a free flowing, water-soluble, easy mixing, 100% dry granular polymer. POLY-BORE stabilizing agent is a very high molecular weight partially hydrolyzed polyacrylamide (PHPA) polymer. When mixed with fresh water, a small quantity of POLY-BORE stabilizing agent can provide a clear, solid-free, viscous borehole stabilizing fluid for use in drilled shaft, auger drilling, horizontal directional boring, trenching excavation and reverse circulation (RC) rotary drilling. POLY-BORE stabilizing agent is not designed to be used in conjunction with bentonite-based fluids.

### Applications/Functions

- Can provide a clay-free boring fluid
- Can stabilize reactive clay and shale formations
- Can enhance core recovery in continuous wireline coring operations
- Can provide high cohesiveness to bind excavated sandy soil and gravel
- Can facilitate the removal of drilled spoils from augers and increase excavation rate
- Can maximize load transfer for drilled shaft application

### Advantages

- Can disperse easily with minimal shear
- Efficient shale/clay stabilizer and viscosifier
- Does not require solids control unit to clean the slurry
- Helps promote stable and gage borehole
- Can result in maximum skin friction and ultimate end bearing capacity for a drilled shaft
- Non-fermenting
- No petroleum distillates involved
- Can break down chemically with bleach (sodium hypochlorite)
- NSF/ANSI Standard 60 certified

### Typical Properties

- |                                    |                |
|------------------------------------|----------------|
| • Appearance                       | White granular |
| • Bulk density, lb/ft <sup>3</sup> | 52             |
| • pH (0.25% solution)              | 8.5 to 9.0     |

**Recommended Treatment**

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**Construction Application**

- Add 3 to 10 pounds of POLY-BORE polymer per 1000 gallons of fresh water (3.6 - 12 kg/m<sup>3</sup>) slowly through the hopper.  
(See general instructions listed below.)

**Reverse Circulation Drilling**

- Add 0.5 to 1 pound of POLY-BORE polymer per 100 gallons of fresh water (0.6 - 1.2 kg/m<sup>3</sup>) slowly through the hopper.  
(See general instructions listed below.)

**General Instructions**

Continue mixing for another 15 to 20 minutes to allow POLY-BORE polymer to hydrate.

- If POLY-BORE polymer is being added directly to a tank with paddle mixers, make sure the freshwater level is well above the paddles. Add the POLY-BORE polymer slowly to the vortex of the spinning paddles.
- Measure the funnel viscosity of the polymer slurry and adjust according to required specifications.

**Notes:**

- Make-up water used to mix POLY-BORE polymer should meet the following quality:  
total chloride less than 1500 ppm (mg/L)  
total hardness less than 150 ppm as calcium  
total chlorine less than 50 ppm  
water pH between 8.5-9.5
- 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/m<sup>3</sup>) of make-up water.
- POLY-BORE polymer can be chemically broken down with regular household liquid bleach (5% sodium hypochlorite). Use one gallon of liquid bleach per 100 gallons (10 liters/m<sup>3</sup>) of fluid formulated with POLY-BORE polymer. Do not use perfumed liquid bleach or solid calcium hypochlorite.

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**Packaging**

POLY-BORE polymer is packaged in 14 lb (6.35-kg) or 35 lb (15.88-kg) resealable plastic containers.

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**Availability**

POLY-BORE polymer 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**

3000 N. Sam Houston Pkwy. E.

Houston, TX 77032

**Customer Service** (800) 735-6075 Toll Free (281) 871-4612

**Technical Service** (877) 379-7412 Toll Free (281) 871-4613

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