POLY-BORE™

Borehole Stabilizing Dry Polymer

Description

POLY-BORE™ stabilizing agent is a free flowing, water-soluble, easy mixing, 100% active, 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

The use of POLY-BORE dry polymer assists or promotes the following:

- Build a clay-free boring fluid
- Stabilize reactive clay and shale formations
- Enhance core recovery in continous wireline coring operations
- Provide high cohesiveness to bind excavated sandy soil and gravel
- Removal of drilled spoils from augers and increase excavation rate
- 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 maintain a stable and gauge borehole
- Helps maximize skin friction and ultimate end bearing capacity for a drilled shaft
- Non-fermenting
- No petroleum distillates involved
- Can be broken down chemically with bleach (sodium hypochlorite)
- NSF/ANSI Standard 60 certified

Typical Properties

Appearance	White granular
Bulk density, lb/ft^3	52
pH (0.25% solution)	8.5 to 9.0

Rev. 03/2011

Recommended Treatment

Construction Application

- Add 3 to 10 pounds of POLY-BORE™ dry polymer per 1000 gallons of fresh water (0.36 – 1.2 kg/m^3) slowly through the hopper. (See general instructions listed below.)

Reverse Circulation Drilling

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

General Instructions

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

- If POLY-BORE dry 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 dry 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 dry 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^3) of make-up water.
- POLY-BORE dry 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^3) of fluid formulated with POLY-BORE dry polymer. Do not use perfumed liquid bleach or solid calcium hypochlorite.

Packaging

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

Availability

POLY-BORE dry 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