PRODUCT DATA SHEET

CLEAR SOLUTIONS
Performance Drilling Products
The Earth Can Trust

Pure-Bore® Liquid

Pure-Bore® Liquid effectively increases shear thinning viscosity in water-based drilling fluids, while providing cuttings encapsulation and fluid loss control.

Product description

Pure-Bore® Liquid is a suspension of the proprietary Pure-Bore® polymer in a low toxicity carrier fluid. The product is readily dispersible and used in water-based drilling fluids where it uniquely combines a highly shear thinning viscosity profile with clay encapsulation and fluid loss control. Its distinct cake-building properties effectively stabilises loose and unconsolidated formations.

Applications

Pure-Bore® Liquid can be used in a wide range of water-based drilling fluids and is compatible with mono- and divalent brines. Its non-damaging, non-invasive properties make it suitable for use in reservoir drill-in fluids (RDF's). Pure-Bore® Liquid is especially suited for quickly building sweeps in workover and completion operations.

Functions

Rheology

Drilling fluids built with Pure-Bore® Liquid are characterised by an elevated low shear rate viscosity combined with a low plastic viscosity, resulting in excellent hole cleaning and cuttings suspension at lower pump pressures and ECD's.

Clay and shale encapsulation

Pure-Bore® Liquid products are effective clay encapsulators, controlling the dispersion of clay cuttings and limiting the hydration and de-stabilisation of exposed shale formations. Unlike PHPA, Pure-Bore® Liquid is effectively recycled through fine shaker screens.

Fluid loss control

Pure-Bore® Liquid molecules will form a low permeability filter cake without the requirement of fine solids. This unique filter cake not only reduces fluid loss, but also effectively stabilises unconsolidated formations.

Advantages

- Readily dispersible and easy to mix with minimal shear, in fresh water or a range of (saturated) brines
- Exceptionally shear thinning with non-progressive gels
- Tight filter cake and solids free fluid loss control
- Provides excellent clay and shale encapsulation
- Stabilises unconsolidated formations
- Effectively recycles through fine shaker screens
- Temperature stable to 250°F/121°C
- Non-damaging to reservoirs
- Ideal for wellbore sweeps in drilling, workover, and completion operations
- Easily destructed by enzyme- or oxidizing breakers
- Tolerant to hardness (calcium) and high pH:
  - *Compatible with divalent brines*
  - *Largely unaffected by cement contamination*
  - *Treating for hardness with soda ash is not required*

Recommended treatment

STIR WELL BEFORE USE. Slowly pour Pure-Bore® Liquid into water, brine, or mud, and mix or agitate until completely dispersed.

Polymer muds:	1.4 - 4.2 lbs/bbl (4 - 12 kg/m^3) [1]
Bentonite muds:	0.7 – 2.1 lbs/bbl (2 - 6 kg/m^3) [2]

1. *The required concentration may vary significantly depending on the application and the concentration of other products used in the formulation.*
2. *The bentonite concentration in the mix should be reduced by approx. 50%. The bentonite should be hydrated first, before adding Pure-Bore® to the slurry.*

Typical physical properties

Physical appearance:	Cream to brown coloured viscous liquid
Specific gravity:	1.0 - 1.1
pH (1% solution):	6 - 8.5

Toxicity and handling

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

Packaging and storage

Store at room temperature in a dry, well-ventilated area. Keep in original container and store away from incompatibles.

Pure-Bore® Liquid is available in:

- *20 kg pails*

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PRODUCED IN THE UK