**PecoBead 400™**

A multi-phase lubricant designed to decrease the coefficient of friction in all water-base drilling fluids. The PecoBead 400™ decreases the coefficient of friction that reduces torque, drag and the potential for differential sticking in the wellbore.

**Description**

PecoBead 400™ lubricant is a suspension of divinyl styrene benzene copolymer drill beads in a lubricant that is hydrocarbon free. The co-polymer beads add to the mechanical effect, embedding themselves in the filter cake of the open hole and providing a mechanical "rollerbearing" effect in cased holes, reducing metal on metal friction. Additional value is seen as the liquid lubricant carrier fluid has a unique wettability characteristic that lowers the potential of accretion on the bottom hole assembly (BHA) and drill pipe, allowing more consistent weight to be applied to the bit. PecoBead 400™ lubricant is only slightly water soluble under most conditions, but is dispersible in water-base muds.

**Advantages**

- Effective lubricant for water-base mud systems
- Decreases the coefficient of friction, which reduces torque and drag
- Reduces the potential for differential sticking
- Mechanically and chemically lubricates
- Temperature stable to 400°F (204°C)
- Reduces the tendency for bit and BHA accretion when drilling sticky shales.
- Crush strength to 16,000 PSI

**Features and Benefits**

The PecoBead 400™ lubricant is made with a premium 100-300 micron DVB co-polymer bead. Other beaded lubricants use beads over 300 micron which can have a detrimental effect to hole cleaning and getting downhole tools and casing to bottom. Beads that are under 100 Micron get lost in the drilling fluid filter cake and do not give the mechanical affects to maximize slide.

**Properties, Typical**

- Specific Gravity, 60°F (16°C) ... 1.0 - 1.02
- Flash point, °F ..................... 201
- Physical Appearance ............. Golden Yellow

**Additional Information**

Normal concentrations of PecoBead 400™ lubricant are in the range of 1/2–3% by volume (5–10 lb./bbl. [14.3–28.5 kg/m³]) depending on the fluid density, desired reduction in coefficient of friction and the mud system.

PecoBead 400™ blended lubricant can be used in higher concentration when applied in pills where torque and drag are clearly being produced in build sections of highly deviated wells. In those situations, concentrations should range 7–10% by volume (24.5–35 lb./bbl. or 69.8–99.8 kg/m³). When circulating these pills, allow sufficient time for the drill beads to work themselves into the formation around the BHA.

PecoBead 400™ is water dispersible and blends easily in all water-base mud systems. It can be added to the mud system through the mud hopper or directly to the surface system anywhere good agitation is available.

**Packaging and Handling**

PecoBead 400™ lubricant is available in 5-gal pails, 55-ga drums, and 275-ga tote. Observe warning label on product container. Normal precautions for industrial chemicals apply.