

# XP-20K

XP-20K\* chrome lignite is a specially formulated product designed for use as a thinner, thermal stabilizer, and fluid-loss-reducing agent in all water-base muds.

It is an excellent additive for High-Temperature, High-Pressure (HTHP) filtration control and rheological stabilization for muds subjected to high temperatures. XP-20K additive contains potassium to assist in shale inhibition.

### Typical Physical Properties

Physical appearance .....	Black, free-flowing powder
Specific gravity .....	1.70
Bulk density .....	52 lb/ft <sup>3</sup> (833 kg/m <sup>3</sup> )
pH .....	10.0 to 10.5 (1% solution)

### Applications

XP-20K additive is used in water-base muds to reduce viscosity, increase rheological stability and inhibition, and improve filtration control. The effect of XP-20K additive is most dramatic in fluids exposed to higher temperatures.

XP-20K additive can be applied to muds of any salinity, from fresh to saturated salt, as well as to lime and gyp muds. For saturated-salt or low-pH mud systems, presolubilize XP-20K additive in a lower-salinity, high-pH fluid.

XP-20K additive may be added to the system through the mixing hopper. Depending on viscosity and fluid-loss requirements, 1 to 6 lb/bbl (2.85 to 17.1 kg/m<sup>3</sup>) may be required. Higher temperatures will require increased concentrations up to 12 lb/bbl (34 kg/m<sup>3</sup>).

Improved HTHP filtration control and rheological stability under adverse conditions, such as high temperatures, may require greater concentrations. For improved mud system and product performance, the pH should be maintained at 9.5 or greater.

### Advantages

- Compatible with all water-base mud systems
- Reduces differential pressure sticking tendencies by reducing filtercake thickness and HTHP fluid loss
- Stabilizes the fluid loss and rheology of water-base muds at temperatures up to 450°F (232°C)
- Contains the more acceptable Cr<sup>3+</sup> chrome valence state
- Particularly effective in freshwater and seawater mud systems
- Helps stabilize water-sensitive shales
- Contains potassium, which contributes to improved shale stability. One lb/bbl (2.8 kg/m<sup>3</sup>) treatment contributes approximately 250 mg/L of potassium.

### Limitations

- Most effective in alkaline systems with a pH of 9.5 or above
- Contains chrome which may not be acceptable for all applications, depending on local environmental regulations; use TANNATHIN\* for these applications

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**Toxicity and Handling**

Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions as described on the Material Safety Data Sheet (MSDS).

**Packaging and Storage**

XP-20K additive is packaged in 50-lb (22.7-kg), multi-wall, paper sacks.

Store in a dry, well-ventilated area. Keep container closed. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.



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