



# KOPR-KOTE® ARCTIC

## DRILL COLLAR & TOOL JOINT COMPOUND

### DESCRIPTION

**KOPR-KOTE® ARCTIC DRILL COLLAR & TOOL JOINT COMPOUND** is the more pumpable or sprayable version of the standard grade of KOPR-KOTE our premier waterwell and HDD drilling compound in the market. KOPR-KOTE ARCTIC WATERWELL and has been in use for more than 3 decades. It is an unleaded compound containing copper flake, graphite, and other natural extreme pressure and anti-wear additives. **KOPR-KOTE® ARCTIC** solids package is formulated to prevent excessive circumferential makeup by increasing the coefficient of friction under compressive forces. As stress levels rise above 50% of yield, the friction factor increases, limiting downhole makeup. Full hydraulic joint efficiency is maintained allowing joint shoulder faces to mate completely without standoff or deformation.

**KOPR-KOTE® ARCTIC** offers the greatest protection in the most severe drilling situations such as higher speeds, higher penetration rates, long horizontal holes, or harder formations. For these applications the drill rods and other rotary shouldered connections should be made up an additional 10%. Friction factors for **JET-LUBE® KOPR-KOTE® ARCTIC** were developed using full scale API tool joint connections.

**For invert or high-pH muds, use Jet-Lube® 21 or EXTREME™.**

- Designed to handle extremes in low temperature
- Contains no lead or zinc.
- Designed for spray and pump equipment application
- Extreme-pressure additives provide additional protection against seizing and galling and allow consistent make-up.
- Sticks to wet joints.
- Unequaled resistance to makeup down-hole.
- Available in Standard, Thermal, and Specialty grades.
- Conforms to assembly bill 1953

### SERVICE RATING:

-65°F (-54°C) TO 300° (149°C)

(Note: Base oil pour points can vary effecting the range)

### PRODUCT CHARACTERISTICS

Thickener	Anhydrous Calcium
Fluid Type	Low pour Petroleum
Dropping Point	>300°F (149°C)
(ASTM D-2265)	
Specific Gravity	1.15
Density (lb/gal)	9.6
Oil Separation (ASTM D-6184)	<3.0
WT. % LOSS @ 212°F (100°C)	
Flash Point (ASTM D-92)	>320°F (160°C)
NLGI Grade	1
Penetration @ 77°F	310 - 330
(ASTM D-217)	
Copper Strip Corrosion	1A, typical
(ASTM D-4048)	
4-Ball (ASTM D-2596)	800, typical
Weld Point, kgf	
Friction Factor*	1.15 (standard service)
(Relative to API RP 7G)	1.25 (very severe service)

\* Many factors such as pipe size, thread geometry, drilling mud contamination, etc. affect the friction factor. This is a relative number and in all applications experience and prior knowledge should be used to adjust make-up torque accordingly. Contact your drill pipe manufacturer for torque and friction- related specifications.

**For package types and part numbers**

[www.jetlube.com/resources/product-index/](http://www.jetlube.com/resources/product-index/)

**Limited Warranty**

[www.jetlube.com/assets/documents/Jet-Lube\\_Warranty.pdf](http://www.jetlube.com/assets/documents/Jet-Lube_Warranty.pdf)