JET-LUBE® EXTREME®

TOOL JOINT & DRILL COLLAR COMPOUND

DESCRIPTION

JET-LUBE® EXTREME® drill collar and tool joint compound is KOPR-KOTE in **JET-LUBE's** newest, high-temp mud-resistant, premium-quality complex base grease. This new base grease offers the additional advantage of superior adhesion, improved EP and anti-wear properties, resistance to water wash-off, and superior rust and corrosion protection in the presence of invert or high-pH muds. The resistance also allows EXTREME to be used for up to 6 months connection storage. **JET-LUBE EXTREME's** 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 down-hole makeup. Full hydraulic joint efficiency is maintained allowing joint shoulder faces to mate completely without standoff or deformation.

- Not classified as a marine pollutant - DOT Approval CA2019050504.
- Highly resistant to drilling muds.
- Contains no lead or zinc.
- Extreme-pressure additives provide additional protection against seizing and galling.
- Complex grease base provides superior rust and corrosion protection.
- Sticks to wet joints.
- Brushable and stable over a wide temperature range.
- Consistent rig floor makeup.
- Unequaled resistance to makeup down-hole.

For optimum performance on API drill string connections, **JET-LUBE® EXTREME®** should be **utilized with the torque charts in API RP7G by multiplying the listed torque value by 1.15** or by contacting the drill pipe and connection manufacturer. Friction factors for **EXTREME** were developed using full scale API tool Joint connections.

Premium drill string connections such as HI-TORQUE® (HT), eXtreme® Torque (XT®), and XT-M™ connections, etc., utilize make-up torques based upon thread compound friction factors of 1.0. Therefore, use the torque provided by the premium connection manufacturer. Adjusting make-up torque based on thread compound friction factor may still be advised.

PRODUCT CHARACTERISTICS

Thickener	Complex Soap
Fluid Type	Petroleum
Dropping Point (ASTM D-2265)	450°F (232°C)
Specific Gravity	1.20
Density (lb/gal)	10.0
Oil Separation (ASTM D-6184) WT. % LOSS @ 212°F (100°C)	<3.0
Flash Point (ASTM D-92)	>430°F (221°C)
NLGI Grade	1
Penetration @77°F (ASTM D-217)	310 – 330
Copper Strip Corrosion (ASTM D-4048)	1A, typical
4-Ball (ASTM D-2596)	
Weld Point, kgf	1,000, typical
Friction Factor, * (Relative to API RP 7G)	1.15
Service Rating	0°F (-18°C) to 450°F (232°C)

Shelf Life: Minimum three years from manufacture date.

* 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.

Environmental Rating:

UK CEFAS	Group B

For package types and part numbers
www.jetlube.com/resources/product-index/

Limited Warranty
www.jetlube.com/assets/documents/Jet-Lube_Warranty.pdf