



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 thread recommended torque 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.

SERVICE RATING:
0°F (-18°C) to 450°F (232°C)

PRODUCT CHARACTERISTICS

Thickener	Complex Soap
Fluid Type	Petroleum
Color	Copper
Dropping Point (ASTM D-2265)	450°F (232°C)
Specific Gravity	1.20
Density (lb/gal)	10.0
Oil Separation (ASTM D-6184)	<3.0
WT. % LOSS @ 212°F (100°C)	
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 *

1.15 (Relative to API RP 5A3 Annex I)

* 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.

This thread compound conforms with API RP 5A3 for use with rotary shouldered connections.

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