JET-LUBE * EXTREME * TOOL JOINT & DRILL COLLAR COMPOUND

DESCRIPTION

JET-LUBE EXTREME mud-resistant drill collar and tool joint compound is a premium-quality, unleaded compound blended into JET-LUBE's newest high-temp, mud-resistant complex base grease. This new base grease offers the additional advantage of superior adhesion, improved EP and antiwear properties, resistance to water wash-off, and superior rust and corrosion protection in the presence of invert or high-pH muds. 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 downhole 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 CA2006100003

- · 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 downhole.

For optimum performance on API drill string connections, **JET-LUBE EXTREME** should be utilized with the torque charts in API RP7G or by contacting the drill pipe and connection manufacturer.

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

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|---|-------------------|
| 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) | <3.0 |
| W _T . % Loss @ 212°F (100°C) | |
| Flash Point (ASTM D-92) | >430°F (221°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) | |
| Weld Point, kgf | 1,000, typical |
| Friction Factor* | 1.15 |
| (Relative to API RP 7G) | / / |
| Service Rating | 0°F (-18°C) to |
| | 450°F (232°C) |

Shelf Life: Minimum two years from manufacture date.

PACKAGING

| Code No. | Container Size | Shipping Wt. |
|----------|----------------|--------------|
| 11423 | 1 gal. | 11 lb. |
| 11413 | 2½ gal. | 26 lb. |
| 11415 | 5 gal. | 52 lb. |
| 11424 | 15 gal. | 152 lb. |
| 11429 | 50 gal. | 514 lb. |

LIMITED WARRANTY

Jet-Lube, Inc. makes the Limited Express Warranty that at the date of delivery, this product shall be free from defects in Jet-Lube, Inc. materials and workmanship.

This Limited Express Warranty is expressly in lieu of any other express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose, and of any other obligation on the part of Jet-Lube, Inc.

The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and Jet-Lube, Inc. shall not be liable for incidental or consequential damages.

CORPORATE LOCATIONS

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Maidenhead, England

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^{*} 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.