

DESCRIPTION

JET-LUBE® 21® ARCTIC, double-duty drill collar and tool joint compound, is free of lead and zinc and is formulated to provide a high level of performance for the increasing demands of today's oilfield market. The lead-free formulation contains copper flake as the only metallic component and is fortified by a unique blend of natural, inorganic, extreme-pressure, and anti-wear additives. For invert or high-pH muds, a special base grease can be made available or use JET-LUBE® EXTREME® OR NCS-30®.

- Not classified as a marine pollutant - DOT Approval CA2006100003
- Contains no lead or zinc.
- Formulated with a proprietary blend of copper, graphite, and other additives for protection and prevention of excessive circumferential makeup in hostile drilling environments.
- Inhibitors protect against rust and corrosion.
- Sticks to wet joints.
- Arctic grade is for improved low temperature applicability and spray systems.
- Consistent rig floor makeup.
- Excellent resistance to makeup down-hole.
- Also available in Standard, Thermal, and Specialty grades.

JET-LUBE® 21® ARCTIC has been designed to utilize the thread manufacturer's recommended torque makeup charts multiplied by the friction factor of 1.15. In the more severe drilling situations such as higher speeds, higher penetration rates, deviated holes, or harder formations, drill collars and other rotary shouldered connections should be made up at least 10% over the recommended values.

APPLICATIONS

JET-LUBE® 21® ARCTIC is recommended for the entire drill string in most drilling conditions. Typical applications would include high angle holes, problem holes, whip stocks, and horizontal drilling applications in moderate to low temperature regions. **JET-LUBE® 21® ARCTIC** prevents high stress in drill pipe connections which shortens their useful life.

PRODUCT CHARACTERISTICS

Thickener	Soap
Type	Petroleum
Color	Metallic
Dropping Point (ASTM D-566)	300°F (149°C)
Specific Gravity	1.1
Density (lb. /gal)	9.0
Oil Separation (ASTM D-6184)	<5.0
Wt. % Loss @ 212°F (100°C)	
Flash Point (ASTM D-92)	>320°F (160°C)
NLGI Grade	1
Penetration @ 77°F (ASTM D-217)	310 - 330
Copper Strip Corrosion (ASTM D-4048)	1A
4-Ball (ASTM D-2596)	
Weld Point, kgf	620
Friction Factor* (Relative to API RP 5A3 Annex I)	1.15
Service Rating	-40°F (-40°C) to 300°F (149°C)

* 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.

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

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

Limited Warranty

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