



# JET-LUBE 21<sup>®</sup> Waterwell DRILL ROD COMPOUND

## DESCRIPTION

**JET-LUBE 21<sup>®</sup>**, an excellent drill rod compound for water-well and construction applications, formulated to provide a superior level of performance for the increasing demands of today's water-well and HDD drilling markets. 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. 21 utilizes our EXTREME base grease which is resistant to invert or high-pH muds and provides better pipe storage properties.

- Not classified as a marine pollutant - DOT Approval CA2006100003
- Contains no lead or zinc.
- Very good running & storage capability.
- 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.
- Special complex base for brushability and stability over a wide temperature range.
- Consistent rig floor makeup.
- Excellent resistance to makeup downhole.
- Available in Arctic grade.

**JET-LUBE 21** should be utilized with torque charts in by multiplying the torque value by 1.15. In the more severe drilling situations such as higher speeds, higher penetration rates, long horizontal holes, or harder formations, drill rods and other rotary shouldered connections should be made up an additional 10%. Friction factors for **JET-LUBE 21** were developed using full scale API tool Joint connections.

## APPLICATIONS

**JET-LUBE 21** is recommended for the entire drill string in most drilling conditions. Typical applications would include HDD wells, standard water-well drilling, and problem holes involving high temperature, and horizontal drilling applications. **JET-LUBE 21** prevents high stress in drill pipe connections which shortens their useful life.

## PRODUCT CHARACTERISTICS

Thickener	Complex Soap
Fluid Type	Petroleum
Dropping Point (ASTM D-566) >	450°F (232°C)
Specific Gravity	1.1
Density (lb. /gal)	9.0
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
4-Ball (ASTM D-2596)	
Weld Point, kgf	620

For package types and part numbers contact [sales@jetlube.com](mailto:sales@jetlube.com)

## LIMITED WARRANTY

For warranty information please visit [http://www.jetlube.com/pdf/Jet-Lube\\_Warranty.pdf](http://www.jetlube.com/pdf/Jet-Lube_Warranty.pdf)

You can also email us at [sales@jetlube.com](mailto:sales@jetlube.com) or write to the Sales Department at the address below.