



# NCS-30®

## NONCONDUCTIVE THREAD COMPOUND

### DESCRIPTION

**NCS-30®** nonconductive thread compound is a premium quality, nonmetallic compound containing carbon-based fibers and additives and other natural extreme pressure and anti-wear additives. These are blended into **JET-LUBE's** high temp calcium complex base grease. This new base grease offers the additional advantage of superior adhesion to wet steel surfaces, resistance to water wash-off, and most drilling muds. **Especially effective for invert or high-pH muds.**

- Excellent performance on high-chrome or nickel alloys
- Contains no metals
- NSF H2 Registered
- Extreme-pressure additives provide additional protection against seizing and galling
- Nonconductive for MWD applications
- Provides maximum protection on Wedge Thread™\* drill string connection designs
- High frictional properties ideal for casing drilling applications

**NCS-30®** 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. **NCS-30®**, with frictional properties similar to **KOPR-KOTE®**, has been designed to utilize the makeup thread manufacture's torque multiplied by its 1.15 friction factor on API 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. Friction factors for **NCS-30®** were developed using full scale API tool joint connections.

- For a "Yellow"-rated product, use NCS-30® ECF™.
- Designed for optimum performance on all Rotary-Shouldered connections such as Tool Joints and Drill Collars. It can also be used on premium/proprietary thread designs such as Double-Shouldered, Wedge Thread™\*, and other types of mechanical seal designs. It may also be used on certain non-interference tubing thread designs when properly torque compensated.

\* Trademark of Hydril Company.

### PRODUCT CHARACTERISTICS

Thickener	Calcium Complex
Fluid Type	Petroleum
Color	Light Brown
Dropping Point (ASTM D-2265)	≥450°F (232°C)
Specific Gravity, typical	1.30
Density (lb/gal), typical	10.95
Oil Separation (ASTM D-6184)	<3.0
WT. % LOSS @ 212°F (100°C)	
Flash Point (ASTM D-92)	> 400°F (204°C)
NLGI Grade	1
Penetration @ 77°F (ASTM D-217)	300 – 330
Copper Strip Corrosion (ASTM D-4048)	1A, typical
Friction Factor*	
1.15 (Relative to API RP 5A3 Annex I)	
Proprietary Connections	Consult Manufacturer
Service Temperature	
Oilfield/Mining/Construction Drilling	-20°F (-29°C) to 500°F (260°C)
Industrial Anti-seize Applications	-65°F (-54°C) to 2600°F (1427°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.

#### Environmental Rating:

UK CEFAS Group E

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