



ZN50

ZINC BASE TOOL JOINT COMPOUND with enhanced corrosion inhibitors

- GEAR OILS
- MOTOR OILS
- HYDRAULIC OILS
- PIPE COATINGS
- THREAD SEALANTS
- BEARING GREASES
- SPECIALTY GREASES
- THREAD COMPOUNDS
- SUCKER ROD COATINGS
- OUTSIDE PRESERVATIVES
- WIRELINE GREASE SEALS
- CLEANERS & DEGREASERS
- PIPE STORAGE COMPOUNDS
- RUST & CORROSION INHIBITORS
- THREAD LOCKING COMPOUNDS
- VALVE LUBRICANTS & SEALANTS
- TOOL JOINT & DRILL COLLAR COMPOUNDS

PRODUCT DESCRIPTION

ZN50 Tool Joint Compound is manufactured with the finest powdered metallic zinc and a high temperature, extreme pressure, petroleum base composition. The zinc used in the manufacture of ZN50 meets API and IADC requirements. ZN50 reduces plating and buildup of zinc, a problem encountered with other zinc products. This product conforms to the recommendation of "Tool Pushers Manual" (IADC-International Association of Drilling Contractors), Section B-2, Pages 1 and 2, and API (American Petroleum Institute) RP 5A3/ISO 13678. ZN50 contains less than 0.3% sulfur as recommended by tool joint manufacturers.

ZN50 has good brushability over a wide range of temperatures, is resistant to water washout, has good adhesion to surfaces, and prevents against rust and corrosion.

BENEFITS

- No plating or zinc buildup
- Prevents rust and corrosion
- Resists washout
- Water-repellent
- Sticks to wet surfaces
- Friction factor of 1.0
- Brushable over a wide temperature range
- Low sulphur content
- Meets API and IADC requirements

APPLICATION

ZN50 is for use on tool joints, drill collars, and rotary shouldered connections. It meets torque break-out, circumferential tightening and makeup torque as recommended by tool joint manufacturers.

ZN50 is designed for drilling hard formations, deep drilling, for breaking in new tool joints, for directional drilling, crooked holes, and other high torque conditions.

TYPICAL OBSERVATIONS

Color	Gray
Texture	Smooth
Soap Type	Lithium Base
Density, lb/gal @ 77°F (25°C)	14.90
Specific Gravity @ 77°F (25°C)	1.785
Dropping Point, ASTM D-2265	395°F (185°C)
Flash Point, ASTM D-92	350°F (177°C)
Penetration,	
ASTM D-217 worked @ 77°F (25°C)	275–305
Base Oil Viscosity	
cSt @ 40°C	370
cSt @ 100°C	21
Evaporation Loss,	
ASTM D-972 @ 212°F (100°C)	0.4%
Shell 4-Ball,	
ASTM D-2596 Weld Point, kgf	620
Oil Separation,	
ASTM D-1742 @ 77°F (25°C)	0.6%
Copper Strip Corrosion, ASTM D-4048	1A
Temperature Range	0°F to 375°F (-17°C to 190°C)
Friction Factor, API RP 5A3 Annex I	1.0
Shelf Life (unopened container)	Four years

The Friction Factor is determined using standardized equipment and tests performed in accordance with API RP 5A3/ISO 13678 under laboratory conditions. In actual field use pipe size, metallurgy, thread geometry, and drilling mud contamination can effect the makeup torque. Adjustments may be required based on experience and knowledge.

RELATED PRODUCTS

- ZN20 Zinc Base Tool Joint Compound
- ZN40 Zinc Base Tool Joint Compound
- ZN50HT High Temperature Zinc Base Tool Joint Compound
- ZN50LT Low Temperature Zinc Base Tool Joint Compound
- ZN60 Zinc Base Tool Joint Compound

