



Liquid-O-Ring®*

YOUR SUPER CENTER FOR OVER 1,000 TOP PERFORMANCE
PRODUCTS SERVING INDUSTRIES WORLDWIDE

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304

SUPERIOR THREAD SEALANT

Made with LIQUILON®*

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

304 Superior Thread Sealant is made with LIQUILON®* for application to tubing, casing, and large diameter size pipe. It performs well in cold weather applications. 304 Superior Thread Sealant seals up to 10,000 psi and services temperatures up to 400°F (204°C). 304 is used exclusively for API TR5 Torque Positioning Make-Up.

304 Superior Thread Sealant may be used as a running compound for downhole service due to its corrosion and H₂S inhibitors.

BENEFITS

- REACH Compliant
- Conforms to API RP 5A3/ISO 13678
- Made with LIQUILON®*
- Lead-free
- Excellent performance in cold weather
- Contains corrosion and H₂S inhibitors
- Non-hazardous
- Services temperatures to 400°F (204°C) and pressures up to 10,000 psi
- Used exclusively for API TR5 Torque Positioning Make-Up
- Provides a non-hardening seal
- Plates out over the entire threaded connection

APPLICATION

304 Superior Thread Sealant requires no mixing, dilution or thinning prior to application. It is applied with a dope brush to both male and female threads. 304 Superior Thread Sealant is for application to tubing, casing, and large diameter pipe. 304 Superior Thread Sealant is especially effective on 8 Round or Buttress connections, as well as on many premium connections. 304 provides thread seal for premium connections forming a double seal along with the metal-to-metal seal.

TYPICAL OBSERVATIONS

Color	Brown
Texture	Rough, Grainy
Active Component	LIQUILON®*
Manufacturing Process	Fluoromation
Specific Gravity, at 77°F (25°C)	1.012
Flash Point, ASTM D-92	>400°F (>204°C)
Base Oil Viscosity	
cSt @ 40°C (104°F)	360
cSt @ 100°C (212°F)	21
Water Washout Characteristics	
ASTM D-1264 @ 100°F (37°C)	Nil
Temperature Range	10°F to 400°F -12°C to 204°C
Shelf Life (unopened container)	Two years

API RP 5A3/ISO 13678

Dropping Point, ASTM D-2265	>500°F (260°C)
Evaporation, % loss 24 h at 212°F (100°C)	Pass
Gas Evolution, cm ³ 120 h at 151°F (66°C)	Pass
Oil Separation, % 24 h at 212°F (100°C)	Pass
Penetration, ASTM D-217	
worked at 77°F (25°C)	295–305
Mass Density, lb/gal at 77°F (25°C)	8.45
Water Leaching,	
% loss 2 h at 151°F (66°C)	Pass
Application & Adherence,	
2 h at 0°F (-18°C)	Pass
Compound Stability	Pass
Copper Corrosion, ASTM D-4048	1A
Salt Spray Test, ASTM B-117	2000+ hours
Friction Factor, API RP 5A3 Annex I	0.9

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

104EU Thread Sealant
404EU All-Purpose Lubricant and Sealant

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Manufactured by

BALMAR LLC

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Sales Locations:

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