



# FORUMLOK™

## Thread-Locking Compound

Fast Cure Forumlok Thread-Locking Compound replaces welding for casing joints on the bottom lengths to prevent unscrewing while drilling out cement. Welding of shoes, couplings, and collars to casing often weakens the casing and should be avoided wherever possible.

#### FEATURES/ADVANTAGES

Withstanding High Breakout Torque. Tests under bottom hole temperatures ranging from 50° through 400° F showed Forumlok withstood greater torque than a standard joint welded in three places with 2 inch beads.

Unaffected by Vibration. At 400° F Forumlok was subjected to a steady breakout torque for 8 hours while under continuous vibration from a 6 pound air hammer. Breakout torque was increased until six times the 3,300 ft-lb makeup torque finally broke the joint.

High Lubricity. Tests were made using Forumlok on one side of a standard coupling and API Modified Thread Dope on the other. Identical pin threads were made up into the coupling. For the same amount of torque, the joint with Forumlok made up further and was cooler than the joint lubricated with standard thread dope. Forumlok has a 1.18 Friction Factor/Torque Factor.

Leak proof Seal. Joints made up with Forumlok using standard torque were tested with water pressures in excess of the listed burst pressure of the casing. The joint showed no leakage. Corrosion Resistant. Five different samples of Forumlok covered steel and underwent a 96 hour ASTM and salt spray test. The result: no visible change in Forumlok; no acceleration of the normal corrosion rate on the five samples of steel.

Unaffected by Low Temperature Storage. Forumlok was stored at -50° F and then thawed, mixed, applied, cured and tested for breakout torque. No detrimental effects due to freezing were detected.

#### FORUMLOK COVERAGE

Casing OD (in.)	Number of joints each Forumlok kit will lock
4-1/2	10
5-1/2	6
6-5/8 or 7	4
7-5/8, 8-5/8 or 9 5/8	3
10-3/4, 11 3/4 or 13-3/8	2
16 or 20	1

#### **EMERGENCY RELEASE**

In case of emergency, Forumlok<sup>™</sup> can be released by heating the joint from 500° to 600° F and applying breakout torque immediately.

## **ForumSeal**





ForumSeal No-Lead/No-Zinc was developed as a special duty Teflon lubrication compound for casing threads. Lead and zinc were removed in order to provide a "Metal Free" thread compound mandated by current industrial environmental safety standards. ForumSeal No-Zinc meets or exceeds the performance requirements of API 5A4.

### **Applications**

Casing and tubing threads. Especially designed for use on API Eight Round and Buttress Threads. Torque correction factor = 0.80.

#### **Temperature Range**

Service Rating: 0°F to 600°F

#### **Order Information**

ltem #	Net Weight	Pail Size
89933109P	9 #	1 Gallon
89933218P	18 #	2 Gallons
89933545P	45 #	5 Gallons

## **Specifications**

Color: Black

Base Grease: Calcium Complex

Solids: Teflon Graphite

Penetration Worked: 360-400, NLGI Grade 0

Brushability Applicable at 0°F

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## **Copper Guard 4**





Forum Copper Guard 4 no-lead tool joint compound is a copper-based, API RP 7A1 tool joint compound that employs a high-quality, low-sulphur petroleum base composition including anti-galling and antiseizing agents. This compound is not affected by solvents, oil, mud, corrosion, and mild acids or alkalies.

This copper compound is designed for rotary shouldered connections used in shallow and medium depth wells. The compound may be used for drill collars and tool joints to promote proper makeup and stress development in the connection when the proper makeup torque is applied. The compound provides excellent anti-seize protection for all threaded fittings, bolts, or heat exchanger connections up to 500°F and inhibits excessive circumferential makeup as additional torque is applied.

#### **Applications**

Tool joints, drill collars, and associated rotary shouldered connections for medium depth drilling at higher than normal temperatures.

#### **Temperature Range**

Service Rating: 0°F to 500°F

#### **Order Information**

Item #	Net Weight	Pail Size
89986109P	9 #	1 Gallon
88986218P	18 #	2 Gallons
88986545P	45 #	5 Gallons

#### **Specifications**

Color: Copper

Base Grease: Lithium Complex

Solids: Copper Graphite

Corrosion Inhibitor Additives:

Anti-Oxidant Friction Control Extreme Pressure Penetration @ 77°F (ASTM D-217): 310, NLGI Grade 1

Brushability:

Applicable at 0°F Relative Density: 1.25 Friction Factor: 1.1

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## **Forum Irish Copper**





Forum Irish Copper no-lead tool joint compound is a copper-based, API RP 7A1 tool joint compound that employs a high-quality, low-sulphur petroleum base composition including anti-galling and anti-seizing agents. This compound is not affected by solvents, oil, mud, corrosion and mild acids or alkalies. Lead and zinc are not utilized in response to alternative "Lead Free and Zinc Free" compounds required by current industrial environmental safety standards.

### **Applications**

All oil field tubular threads: drill pipe, collars, tools, casing, tubing and line pipe. Conforms to API RP 7A1

## **Temperature Range**

Service Rating: 0°F to 400°F

#### **Order Information**

Item #	Net Weight	Pail Size
89986109P	9 #	1 Gallon
88986218P	18 #	2 Gallons
88986545P	45 #	5 Gallons

## **Specifications**

Color: Bronze

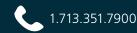
Base Grease: Lithium Complex Solids: Copper

Graphite

Penetration @ 77°F (ASTM D-217): 310-340, NLGI Grade 1 Brushability: Applicable at 0°F

Relative Density: 1.25
Friction Factor: 1.1

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## **Forum API Modified**





Forum API Modified thread compound conforms to the recommendations of API Bulletin 5A2 thread compounds for casing, tubing and line pipe.

Designed for high temperature (400° F) and high pressure (10,000 psi) applications, this thread compound contains component qualities to resist galling, evaporation, oxidation and water absorption.

## **Applications**

Casing, tubing and line pipe threads. (Not recommended for rotary shouldered connection.)
Torque correction factor = 0.80.

## **Temperature Range**

Service Rating: 0°F to 400°F

#### **Order Information**

ltem #	Net Weight	Pail Size
89965225M	25 #	2 Gallons
89965450MIMD9	50 #	3-1/2 Gallons
89965545P	70 #	5 Gallons

## **Specifications**

Color: Black

Base Grease: Lithium Complex

Solids: Graphite

Lead Zinc Copper

Additives: Rust Inhibitor

Corrosion Inhibitor Oxidation Inhibitor

Penetration @ 77°F (ASTM D-217): 310-340, NLGI Grade 1

Brushability: Applicable at 0°F

Relative Density: 2.0 Friction Factor: 0.85

#### Friction Factor for Forum API Modified

Per industry standard, the friction correction factor for Forum API Modified on premium threads is 0.85. Therefore, the recommended torque should be multiplied by 0.85 when Forum API Modified is used.

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## **Forum Metal Free**





Forum Metal Free Tool Joint Compound is a total non-metallic, API RP 7A1 tool joint compound that employs space age, inert, high-performance materials in a high quality, Lithium 12 Hydroxy-Stearate base composition. Forum Metal Free is chemically unable to generate hydrogen or other decomposition gases to adversely affect performance in service or storage in contrast to metallic compounds. This compound is not affected by solvents, oil, mud, corrosion and mild acids or alkalies.

### **Applications**

All oil field tubular threads: drill pipe, collars, tools, casing, tubing and line pipe.

#### **Temperature Range**

Service Rating: 0°F to 400°F

#### **Order Information**

ltem #	Net Weight	Pail Size
89990220P	20 #	2 Gallons
89990330P	30 #	3 Gallons
89990550M	50 #	5 Gallons

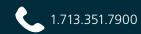
## **Specifications**

Color: Black

Base Grease: Lithium Complex

Solids: Graphite
Penetration @ 77°F (ASTM D-217): 310-340
Relative Density: 1.3
Friction Factor: 1.14

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Forum Zee-50 employs a high-quality, low-sulphur petroleum base composition including antigalling and anti-seizing agents. In addition, these compounds are not affected by solvents, oil, mud, mild acids, or alkalies. Therefore, the connection is afforded maximum protection from rust and corrosion.

This Zinc compound is designed for all Rotary Shouldered Connections to promote proper makeup and stress development in the connection at recommended torques. Since the compound inhibits excessive circumferential makeup as additional torque is applied, it is highly recommended for deep drilling, drilling of hard formations, directional drilling, break-in of new tool joints, and associated high torque applications.

### **Applications**

Tool joints, drill collars, and associated rotary shouldered connections.

#### **Temperature Range**

Service Rating: 0°F to 400°F

#### **Order Information**

Item #	Net Weight	Pail Size
89962335P	35 #	3 Gallons
89962565M	65 #	5 Gallons

### **Specifications**

Color: Gray

Base Grease: Lithium Base Grease

Solids: Zinc

Additives: Rust Inhibitor

Corrosion Inhibitor
Oxidation Inhibitor

Penetration @ 77°F (ASTM D-217): 310-340, NLGI Grade 1

Brushability: Applicable at 0°F

Relative Density: 1.7
Friction Factor: 1.0

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