



# FASTORQ® LUBRICANTS

**“GUARANTEED”**  
TO PERFORM AS SPECIFIED

## FASTORQ A/G Stops Galling - Great Sealant

FASTORQ A/G thread lubricant is "guaranteed" to eliminate galling on stainless steel threaded connections. It performs as an excellent sealant and lowers torque requirements, as proper make-up is achieved quickly with minimum torque.

In addition to eliminating galling on stainless steel threads, FASTORQ A/G is equally effective on other gall-susceptible materials, as well as ferrous alloys and may also be used on more common types of carbon steel. It has passed both the "Shrimp Test" (drilling fluid toxicity test) and the Static Sheen Test in accordance with EPA standards.

FASTORQ A/G contains a high percentage of PTFE flake that will seal off a leak path and prevent the passage of fugitive emissions at pressures up to 20,000 PSI. The need for Teflon tape is eliminated.

FASTORQ A/G contains no metals or other ingredients which may be hygienically or environmentally harmful.

FASTORQ A/G is an excellent lubricant for reducing friction. With the use of this superior lubricant, a connection can be tightened until a metal to metal seal is achieved - "without galling". This reduced friction under pressure means that proper make-up can be achieved quicker

and with less torque. FASTORQ A/G is recommended for use as a thread compound in applications such as bolted joints, pipe and fittings, and for temperatures not exceeding 550°F.

**FASTORQ A/G Demonstrated:** *The threads of a stainless steel bolt have been distorted or flattened by hammering. Normally, the threads would be ruined and the bolt discarded. FASTORQ A/G was applied to the damaged threads. A nut was run down over the bolt and the threads were reformed to their original shape. The mating surfaces were once again smooth and even. In another demonstration, a 316 stainless bolt was used to chase new threads in an aluminum block.*

Lubricant Classification:	Paste
Appearance:	Bright yellow, grainy
Solids Description:	PTFE and a synergistic blend of other lubricating solids
Solids Content:	72% by weight
Temperature Range:	-30°F -550°F
Fluid Description:	Synthetic and natural oils
Oil Viscosity, SUS:	60
Evaporation Rate:	None
Solubility:	Nil
Thickener:	Complex Soap

## FASTORQ RS18 Stops Galling - Smooth Application

FASTORQ RS18 is an excellent thread lubricant that also eliminates galling on stainless or other gall-susceptible threaded connections. The smooth consistency makes it easy to apply. RS18 does not reduce torque requirements to levels below those of other compounds. This is an important feature for applications involving rotary shouldered connections or in other situations where over-torquing is a concern.

FASTORQ RS18 is also recommended for lubrication of shafts or other gall-susceptible mechanisms, which would normally be lubricated with smooth extreme pressure grease. It is intended for use at temperatures ranging from zero to 300 F. In addition, it is completely water-insoluble.

FASTORQ RS18 is a film forming lubricant. It has a strong polar attraction to metal surfaces and applies readily to threads or other machined parts. During use, a thin resilient coating is formed on areas subject to heavy loading and frictional heat. This thin layer helps prevent further abrasive contact between surfaces. No stirring is needed prior to use.

NLGI Grade:	2
Primary Functions:	Extreme pressure / anti-galling
Appearance:	Yellow, smooth
Solids Content:	50%
Recommended Temp:	0°F - 300°F
Oil Description:	Synthetic
Viscosity, SUS @ 100°F:	730
Evaporation Rate:	None
Solubility:	Nil
Thickener:	Inorganic

## FASTORQ 444 Waterproof Lubricant

FASTORQ 444 contains a 40% blend of lubricating solids, which provide excellent protection from wear and grinding pressures of slow moving heavy machinery. This grease is primarily intended for use on open gears. It may also be used as a heavy-duty thread compound, especially where resistance to water washout is important.

FASTORQ 444 offers the added advantage of long term rust and corrosion protection. It is not only "waterproof" but also contains additives specifically designed to prevent the damaging effects of salt and other corrosive elements.

FASTORQ 444 may be used in other applications that involve splines, u-joints, chucks, pillow block bearings and most high impact surfaces & other heavily loaded, slow moving mechanisms. It can also be used in freezing temperatures, or at temperatures as high as 300 F.

NLGI Grade:	4
Primary Functions:	EP/anti-wear, corrosion protection
Appearance:	Brown, slightly grainy
Solids Content:	40%
Recommended Temp:	30°F - 300°F
Oil Description:	Synthetic
Viscosity, SUS @ 100°F:	2000
Evaporation Rate:	None
Solubility:	Nil
Thickener:	Inorganic

## FASTORQ 70+ High Pressure Threading

FASTORQ 70+ is a thread compound formulated to provide smooth make-up and breakout of threaded connections. Another primary function is the prevention of rust and corrosion.

FASTORQ 70+ contains well over 70% pure molybdenum disulfide, more than any other moly paste. For decades, moly has been recognized for its lubricity under pressure and its ability to pack solidly and smoothly into the pores of metal surfaces. It is also noted for its chemical stability at temperatures below 750°F. FASTORQ 70+ contains a significant concentration of rust and corrosion inhibitors. An H2S inhibitor is also included.

FASTORQ 70+ is recommended for general use on threaded connections and press fits, and performs well as a lubricant for nut splitter chisels. It can also be used on seal rings and as a dressing for packing and o-rings.

FASTORQ 70+ works well as a wear-in lubricant and a variety of other applications where sliding friction is present. It is recommended for use at temperatures not exceeding 750°F.

Lubricant Classification:	Paste
Appearance:	Smooth, dark gray
Solids Description:	Pure molybdenum disulfide
Solids Content:	Over 70% by weight
Oxidation of Solids:	Begins at 750°F
Oil Description:	Mixture: petroleum & synthetic oils
Viscosity, SUS:	Not determined
Evaporation Rate:	None
Solubility:	Nil
Binding Agent:	Complex Soap
5% Salt Spray (ASTM B117):	90 Days, Pass (No Rust)
Humidity Cabinet (ASTM D1748):	90 Days, Pass (No Rust)

## FASTORQ 72 High Temperature Applications

FASTORQ 72 is a heavy duty, nickel based thread lubricant designed to prevent galling and accomplish proper make-up with less torque. Repeatability is important. FASTORQ 72 has a K-factor, which is not only lower, but also more consistent than any other nickel based compound.

FASTORQ 72 is particularly recommended for use in extreme temperatures. Connections subject to "metal creep" may no longer offer a good fit between mating surfaces. The solids package in FASTORQ 72 continues to provide a reliable bearing surface to prevent galling during breakout.

FASTORQ 72 does not contain sulfur bearing or other materials that might cause stress cracking (an important feature in the nuclear industry). Recommended for temperatures up to 2500° F.

Lubricant Classification:	Paste
Appearance:	Smooth, dark gray
Specific Gravity:	6.07
Solids Description:	Synergetic blend of nickel flake and another lubricating solid
Solids Content:	72% by weight
Lowest Melting Point:	>2500 °F
Oil Description:	Mixture of petroleum and fatty oils
Viscosity, SUS:	325
Evaporation Rate:	None
Solubility:	Nil
Binding Agent:	Complex Soap

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# FASTORQ®

## LUBRICANT FUNDAMENTALS

The purpose of any lubricant is to reduce friction between moving surfaces, which come in contact with each other. How this reduction of friction is to be accomplished depends largely on two factors:

(1) the speed at which the surfaces are moving relative to one another and (2) how much pressure is being exerted between surfaces at the point of contact. Ambient conditions such as extreme heat or salt water may also be determining factors.

Lubrication of threaded connections (nuts and bolts, pipe and fittings, etc.) is a good example of a low speed/extreme pressure application. This is what "thread compounds" like FASTORQ A/G, FASTORQ RS18, FASTORQ 72 and FASTORQ 70+ are designed to do. FASTORQ 444 can also be used as a thread compound, but it was formulated primarily for open gears - another heavily loaded, low speed mechanism.

Of course, the question is **"how FASTORQ lubricants do their job" and "why they do it better than others"**.

To maintain a smooth bearing surface for flanks of threads or heavily loaded gears to slide against, solid lubricants are required. Oil or grease alone will squeeze out under pressure, leaving the contact area essentially dry. Our thread compounds each contain a minimum of 72% lubricating solids by comparison with 60% or less for

virtually all of our competitors. This heavier concentration of solids means that the "mechanical barrier", which FASTORQ lubricants provide, remains in place more effectively; and that the required torque values are lower and more consistent. Another factor considered in the formulation of our solids packages is that the specific combinations of materials will be very smooth and slippery under pressure.

With the exception of the nickel particles in FASTORQ 72, all of these solids are very soft compared to the metal surfaces they lubricate. As the pressure between these surfaces increases, the mechanical barrier finally wears away. At this point, while some of the lubricant particles have been literally ground into the metal, there is little left to prevent a sharp increase in direct "rubbing together" of the metal causing wear, tearing and galling. Heat from this friction activates a "chemical barrier". Additives are included in the lubricant, which react chemically with the metal surfaces. Very small wear particles resulting from this reaction contribute to the lubricating barrier between contact surfaces. In this way, the wear process is controlled so that welding cannot occur.

We have prepared a chart, which will be helpful in deciding which product to use with your application.

