

Performance you can trust

## FOODLUBE® Anti-Seize



ISO 21469 Certified

### Anti-Seize and Thread Compound for Food Processing Machinery

#### Product Overview

ROCOL® FOODLUBE Anti Seize is a white non-toxic lubricating paste that is designed for use as an anti-seize, assembly lubricant and thread compound.

FOODLUBE Anti Seize is also suitable as a lubricant for open gears under low and medium loads or slow speeds.

FOODLUBE Anti Seize is optimized for use on stainless steels, such as those commonly found in food, pharmaceutical and other clean environments.

FOODLUBE Anti Seize is designed to produce controlled assembly, and reduce galling and seizure on disassembly even in wet, dirty and corrosive conditions.

#### Features and Benefits

- Temperature resistance: -30°C to +450°C.
- Optimised for preventing pick up and seizure of stainless steel fasteners, particularly at elevated temperatures.
- Economical in use – only requires a thin film for maximum performance.
- Extremely tenacious – resists water wash.
- FOODLUBE Anti Seize is non-toxic, meets the requirements of NSF H1: incidental contact with food.
- FOODLUBE Anti Seize is ideal for use on machinery and assemblies operating in food, pharmaceutical and other clean environments.
- Suitable for use with aluminium and its alloys.

#### Directions for Storage and Use

- Apply as a thin film by brushing or wiping onto a dry, clean surface.
- For best results, apply to both male and female components and fasteners.
- The storage temperature should be controlled between +1°C and +40°C
- Shelf life is 3 years from date of manufacture.

#### Specifications

- FOODLUBE Anti Seize does not contain mineral hydrocarbons, animal derived material, nut oils or genetically modified ingredients.
- FOODLUBE Anti Seize is manufactured from only FDA listed ingredients: DA Group 21 CFR 178.3570
- NSF H1 registered 154575
- ISO 21469
- Halal certified
- Kosher Certified

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| Property                    | Test Method          | Result                  |
|-----------------------------|----------------------|-------------------------|
| Appearance                  | N/A                  | White, Tenacious Grease |
| NLGI                        | IP 50 – ASTM D217    | 2/3                     |
| Base Type                   | N/A                  | Polyalphaolefin         |
| Thickener                   | N/A                  | Calcium Sulphonate      |
| Solids                      | N/A                  | White, Non-Toxic Solids |
| Solids Content              | N/A                  | 46%                     |
| Density                     | Pycnometer           | 1.37 g/cc               |
| Temperature Range           | N/A                  | -30°C to +450°C         |
| Water Solubility            | N/A                  | Insoluble               |
| 4-Ball Wear Scar (40kg 1hr) | IP 329 - ASTM D2266  | 0.84mm                  |
| 4-Ball Weld Load            | IP 329 - ASTM D2509  | 560kg                   |
| Copper Corrosion Test       | IP 112 - ASTM D130   | 1b                      |
| Water Washout               | IP 215 - ASTM D1264  | < 2%                    |
| Approximate Coverage        | 0.1mm film thickness | 10m <sup>2</sup> /kg    |

Values quoted above are typical and do not constitute a specification.

### Safety Data Sheets

Safety data sheets are available for download from our website [www.rocol.com](http://www.rocol.com) or may be obtained from your usual ROCOL contact.

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#### Torque Setting for Fasteners

When a thread compound is applied to a fastener that will be torque tightened, the torque setting will require adjustment to achieve the correct tension in the fastener. Correct torque settings can be calculated using the methods below.

The Following parameters were derived from the tension-torsion relationship measured on M12 x 50mm setscrews with 1.75mm thread pitch, full nut and Form A washers. Fasteners were degreased and a thin layer of thread compound applied in line with instructions on Page 1. Data are for fasteners at 90% of the yield stress:

| Fastener Material      | Coefficient of Friction ( $\mu$ ) | K-Factor |
|------------------------|-----------------------------------|----------|
| 304 Stainless Steel    | 0.115                             | 0.17     |
| 8.8 Steel Plain Finish | 0.098                             | 0.14     |
| 8.8 Steel BZP          | 0.079                             | 0.12     |

$$T = F \times \left[ (0.159 \times P) + (0.577 \times d \times \mu) + (D_f \times \frac{\mu}{2}) \right]$$

$T$  = Torque Applied (Nm)  
 $F$  = Tension Generated in Fastener (N)  
 $P$  = Thread Pitch (m)  
 $d$  = Pitch Diameter (m)  
 $D_f$  = Nut Friction Diameter (m)  
 $\mu$  = Coefficient of Friction

$$T = K \times F \times D$$

$T$  = Torque Applied (Nm)  
 $F$  = Tension Generated in Fastener (N)  
 $D$  = Nut Nominal Bolt Diameter (m)  
 $K$  = K-Factor

Many parameters affect the tension-torsion relationship of fasteners, including: Bolt geometry, surface finish, lubricant application method, joint material,, torque application method, variation in fastener manufacture etc. Therefore, these parameters above are for guidance only, especially if a different material is used or if geometry is significantly different to M12. Any calculated values are a predictive tool and the final tension should be verified, especially in critical applications. These values do not constitute a specification.

For further guidance, please speak to your usual ROCOL contact or [technical.lubricants@rocol.com](mailto:technical.lubricants@rocol.com).

The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility.

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