

## ANTI-SEIZE Compound

### Copper based anti-seize paste

#### Product Overview

ROCOL® ANTI-SEIZE Compound is a copper based anti-seize paste reinforced with graphite and molybdenum disulphide to further enhance its performance particularly in applications where conventional copper based anti-seize products may fail to perform.

ROCOL ANTI-SEIZE Compound is designed for use on all static fasteners and mechanisms prone to seizure. This high performance compound is ideal as an assembly and anti-seize lubricant in extreme adverse conditions where pick up and seizure issues may be experienced.

ROCOL ANTI-SEIZE Compound is particularly suited to extreme wet conditions even when submerged in sea water environments.

ROCOL ANTI-SEIZE Compound is also available in aerosol form – see Anti-Seize Spray (ROCOL part code: 14015).

#### Features and Benefits

- ROCOL ANTI-SEIZE Compound has an excellent static operating temperature resistance of -50°C to +1100°C.
- Non soap thickener producing non melting anti-seize compound.
- ROCOL ANTI-SEIZE Compound prevents pick-up and seizure of static threaded fasteners.
- Lubricates, protects and eases dismantling.
- ROCOL ANTI-SEIZE Compound is effective even in the most aggressive environments and is completely insoluble in water.

#### Directions for Storage and Use

- Apply as a thin film by brushing or wiping onto a clean dry surface.
- For best results apply to both the male and female parts.
- Also available as ANTI-SEIZE Spray for application by aerosol.
- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 5 years from date of manufacture.

#### Typical Applications

- Furnaces.
- Exhaust systems.
- Dockside and oil rig applications.

#### Specifications

- Naval Cat No.: 0475-541-8659 (6kg)
- RAF Ref No.: 34D/301-6210 (85kg)  
34D/224-6794 (500g)
- NATO Stock No.: 8030-99-301-6210 (85g)  
8030-99-224-6794 (500g)  
8030-99-541-8659 (6kg)

#### Pack Sizes

Pack Size	Part Code
85g	14030
500g	14033
6kg	14035
18kg	14038

## ANTI-SEIZE Compound

### Copper based anti-seize paste

Property	Test Method	Result
Appearance	N/A	Dark coppery coloured paste
NLGI No.	IP 50 – ASTM D217	1/2
Base Type	N/A	Mineral oil
Thickener	N/A	Organically modified clay
Solids	N/A	Copper, Graphite, MoS <sub>2</sub>
Solids Content	N/A	Approximately 37%
Temperature Range	N/A	-50°C to +1100°C
Water Solubility	N/A	Insoluble
Coefficient of Friction	1.25" carbon steel bolts	0.15
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.

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.

Issue: 4 Date: 06-17

T +44 (0) 113 232 2600  
F +44 (0) 113 232 2740  
E [customer-service@rocol.com](mailto:customer-service@rocol.com)  
[www.rocol.com](http://www.rocol.com)

ROCOL House, Swillington, Leeds LS26 8BS

Registered Company No. 559693 VAT No. 742 0531 67  
Registered Office: Admiral House, St Leonard's Road, Windsor, Berkshire SL4 3BL

ROCOL A division of *ITW* Ltd



BS EN ISO 9001  
Certificate No. FM 12448



BS EN ISO 14001  
Certificate No. EMS 67596



OHSAS 18001  
Certificate No. OHS 78173



INVESTORS  
IN PEOPLE

## ANTI-SEIZE Compound

### Copper based anti-seize paste

#### 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
8.8 Steel Plain Finish	0.114	0.15
8.8 Steel BZP	0.077	0.11
8.8 Steel Hot Dip Galvanised	0.101	0.14
304 Stainless Steel	0.108	0.15
Aluminium 6061	0.085	0.13
Aluminium 7075	0.085	0.12
Ti6Al4V Bolt / Alu 7075 Nut & Washer	0.079	0.11

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

**T** = Torque Applied (Nm)  
**F** = Tension Generated in Fastener (N)  
**P** = Thread Pitch (m)  
**d** = Pitch Diameter (m)  
**D<sub>f</sub>** = Nut Friction Diameter (m)  
**μ** = 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).

T +44 (0) 113 232 2600  
 F +44 (0) 113 232 2740  
 E [customer-service@rocol.com](mailto:customer-service@rocol.com)  
[www.rocol.com](http://www.rocol.com)

ROCOL House, Swillington, Leeds LS26 8BS

Registered Company No. 559693 VAT No. 742 0531 67  
 Registered Office: Admiral House, St Leonard's Road, Windsor, Berkshire SL4 3BL

ROCOL A division of ITW Ltd



BS EN ISO 9001  
 Certificate No. FM 12448



BS EN ISO 14001  
 Certificate No. EMS 67596



OHSAS 18001  
 Certificate No. OHS 78173



INVESTOR IN PEOPLE