ROCOL®

Performance you can trust

Technical Data

ANTI-SEIZE Spray

Copper Based Anti-Seize Spray

Description

ROCOL® ANTI-SEIZE Spray is a copper based anti-seize aerosol 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 Spray 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 Spray is particularly suited to extreme wet conditions even when submerged in sea water environments.

Applications / Industries

- Furnaces
- Docks / ports
- Offshore
- Engines
- Automotive
- Hinges
- Latches

Features & Benefits

- Outstanding temperature range -50°C to +1100°C
- Non melting compound
- Prevents pick up and seizure of static threaded fasteners
- Lubricates, protects and eases dismantling
- Effective even in the most aggressive environments and is completely insoluble in water.
- Excellent corrosion protection
- Improves co-efficient of friction, see page 3 for details.

Directions For Use

Shake aerosol well before use
Apply from a distance of 15-30cm (6-12 inches)
For best results apply to both the male and female components
Only use in a well ventilated area
Storage temperature of should be kept below 50°C and kept out of direct sunlight.
Shelf life is 2 years from date of manufacture
Also available as a paste – see Anti-Seize Compound

Further Information

For pack sizes, part codes and safety data sheets please visit www.rocol.com or get in touch with our customer service team who will be happy to help: customer.service@rocol.com

T +44 (0) 113 232 2600 **F** +44 (0) 113 232 2740
E customer.service@rocol.com **www.rocol.com**
ROCOL House, Swillington, Leeds LS26 8BS

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bsi. ISO 9001 Quality Management FM 12448 | AS/EN 9100 Series Aerospace FM 667905 | ISO 14001 Environmental Management EMS 67596 | OHSAS 18001 Occupational Health and Safety Management OHS 78173

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Property	Test Method	Result
Appearance	Visual	Silvery copper coloured slightly greasy film
Base Type	N/A	Mineral oil
Thickener	N/A	Organically modified clay
Solvent	N/A	Hydrocarbon
Propellant	N/A	LPG (Hydrocarbon)
Solids	N/A	Copper, Graphite, MoS_2, Aluminium
Solids Content in Applied Film	N/A	Approximately 40%
Temperature Range	N/A	-50°C to +1100°C
Water Solubility	N/A	Insoluble
Coefficient of Friction	N/A	circa 0.15
Approximate Coverage	0.1mm film thickness	$4m^2$/400ml

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

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Torque Settings of 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 (μ)	K-Factor
8.8 Steel Plain Finish	0.104	0.14
8.8 Steel BZP	0.085	0.12
8.8 Steel Hot Dip Galvanised	0.104	0.14
304 Stainless Steel	0.112	0.15
Aluminium 6061	0.093	0.13

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

T = *Torque Applied (Nm)*
F = *Tension Generated in Fastener (N)*
P = *Thread Pitch (m)*
d = *Pitch Diameter (m)*
D_f = *Nut Friction Diameter (m)*
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.

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