

Technical Data



Performance you can trust

OXYLUBE Spray

Inorganic dry film coating of molybdenum disulphide in aerosol form

Product Overview

ROCOL® OXYLUBE Spray provides a very high content molybdenum disulphide film.

It is designed to lubricate sliding mechanisms such as plain bearings, pins, cams and slides particularly in oxygen or vacuum environments.

ROCOL OXYLUBE Spray is also suitable for applications where contamination by aggressive chemicals or petroleum based solvents, oils and greases would destroy conventional lubricants.

Typical Applications

ROCOL OXYLUBE Spray is ideal for use as an assembly and dry film lubricant for sliding mechanisms, plain bearings, valve seats etc.

Features and Benefits

- Temperature range of applied film -200°C to +450°C.
- Dry film lubrication – resists pick up of contaminants.
- Inorganic resin bonded - suitable for oxygen and vacuum environments.
- Prevents galling, pick-up and seizure.
- Resistant to high loads (up to 7,000 kg/cm²).
- Excellent wear resistance (high molybdenum disulphide content).

Directions for Storage and Use

- Ensure surfaces to be treated are clean, dry and free from oil, grease or dirt contamination.
- Shake aerosol thoroughly for 2-3 mins after agitator ball begins to rattle.
- Hold upright and apply a thin even coating from approx distance of 10-15 cm (4-6 inches).
- Use only in well ventilated areas.
- After use, invert the can and spray until nozzle is clear.
- Film will be touch dry in 2-3 mins, leave at least 10-15 mins for complete cure @ 20°C.
- The cured film can be improved by lightly burnishing with a lint free cloth.
- The storage temperature should be kept below +50°C, and the storage area should be out of direct sunlight.
- Shelf life is 4 years from date of manufacture.

Specifications

- Rolls Royce Specification – R-R OMAT 4/54
- Naval Cat No.:
 - 0475-224-1963
- NATO Stock No.:
 - 9150-99-224-1963

Pack Sizes

Pack size	Part Code
400ml	10125

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FM 12448



EMS 67596



OHS 78173



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Property	Result
Appearance	Thin dark grey film
Solids	Molybdenum disulphide
Binder	Inorganic resin
Solvent	Hydrocarbon
Propellant	LPG (Hydrocarbon)
Drying Times:	
Touch dry	2-3 mins
Complete cure (20°C)	Approximately 10-15 mins
Temperature Range of applied film (for best performance apply at ambient temperature)	-200°C to +450°C

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 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 (μ)	K-Factor
8.8 Steel Plain Finish	0.058	0.09
8.8 Steel BZP	0.055	0.09
8.8 Steel Hot Dip Galvanised	0.090	0.13
304 Stainless Steel	0.077	0.11
Aluminium 6061	0.068	0.10

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

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.

For further guidance, please speak to your usual ROCOL contact or 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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