

Dry Moly Spray

Dry film coating of molybdenum disulphide in aerosol form

Summary

ROCOL® Dry Moly Spray provides a very high content molybdenum disulphide (MoS₂) film. It is designed to lubricate sliding mechanisms such as plain bearings, pins, cams and slides where a wet lubricant cannot be tolerated.

Molybdenum disulphide is a great lubricator and very resistant to high loads.

For other similar MoS₂-containing lubricants, consider Dry Moly Paste and solvent based liquid Dry Moly Fluid.

Features and Benefits

- Outstanding wide temperature range -50°C to +450°C
- Dry Film lubricant resists pick up of contaminants such as dust and debris etc
- Resists pick up and galling at high load
- Excellent wear resistance
- Eases dismantling of assemblies

Applications

- Lubrication of: Plain Bearings, Slides, Pins, Cams, Chains etc.
- Fretting Resistance For: Splines, Keyways, etc.
- Assembly of interference fitted components
- Anti-Seize and Assembly lubrication
- Running-in of gear contacts

Usage Guidance

Shake the aerosol well before use, shake for 2 minutes after the agitator ball begins to rattle

Hold can upright and apply from a distance of 15–30cm (6-12 inches)

Use only in well ventilated areas and do not apply to very hot surfaces.

After use invert can and spray until nozzle is clear.

Film will be touch dry in 2-3 minutes and completely dry in 3 hours

The cured film can be improved by lightly burnishing in with a lint free cloth

Storage Guidance

Storage temperature should be kept below 50°C and kept out of direct sunlight.

Shelf life is 4 years from date of manufacture.

Approvals and Certifications

- NATO Stock number - 9150992248709
- NAVAL Catalogue number - 4752248709
- Rolls Royce approved - OMAT452

Pack Sizes

Part Code	Pack Size
10025	400ml

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Parameter	Test Method	Value
Appearance	Visual	Thin blue-black film
Solids	N/A	Molybdenum disulphide
Binder	N/A	Silicone resin
Propellant	N/A	LPG (Hydrocarbon)
Drying Times:	N/A	
Touch Dry	N/A	2-3 minutes
Complete Cure (20°C)	N/A	Approximately 3 hours
Temperature Range of Applied Film (for best performance apply at ambient temperature)	N/A	-50°C to +450°C

Safety Datasheets

These are available at <https://www.rocol.com/datasheets>. For further assistance, please contact us via the ROCOL website or using the details below.

Note

The information in this Technical Datasheet is informed by our experience and feedback from industry. There are many variables outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Values quoted are typical and do not constitute a specification.

If you'd like to discuss the suitability of any ROCOL solution for your system, please get in touch.

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Torque Setting for Threaded 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 to threads, nut face and washers. Data are for fasteners at 75% rated yield stress:

Fastener Material	Coefficient of Friction (μ)	K-Factor
A2-70 Stainless Steel	0.083	0.12
8.8 Steel Plain Finish	0.113	0.16

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

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.

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