ROCOL®

Performance you can trust

Technical Data

Dry Moly Spray

Dry film coating of molybdenum disulphide in aerosol form

Description

ROCOL® Dry Moly Spray provides a very high content molybdenum disulphide 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 (MoS2) is a great lubricator and very resistant to high loads.

Also available in paste form – see Dry Moly Paste, and solvent based liquid form – see Dry Moly Fluid.

Applications

- Plain Bearings
- Slides
- Screws
- Pins
- Cams
- Chains
- Fasteners / bolting arrangements
- Splines
- Keyways
- Gearing

Approvals

NATO Stock number – 9150992248709
NAVAL Catalogue number – 4752248709
Rolls Royce approved – OMAT452
British Rail Catalogue number – 27029008

Features & Benefits

- Outstanding wide temperature range -50°C to +450°C
- Dry Film lubricant – resists pick up of contaminants such as dust and debris etc
- Prevents pick up and
- Excellent wear resistance
- Resists high loads
- Eases dismantling of assemblies
- Improves co-efficient of friction, see page 3 for details.

Directions For Use

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

shelf life is 4 years from date of manufacture.

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

Hold the 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

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

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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	Thin blue-black film
Solids	N/A	Molybdenum disulphide
Binder	N/A	Organic resin
Solvent	N/A	Ketone
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

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	0.085	0.12
8.8 Steel BZP	0.109	0.15
8.8 Steel Hot Dip Galvanised	0.141	0.19
304 Stainless Steel	0.137	0.18
Aluminium 6061	0.121	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.

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