Technical Data

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Performance you can trust

Dry Moly Fluid

Resin bonded dry film coating of molybdenum disulphide

Product Overview

ROCOL® Dry Moly Fluid 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.

ROCOL Dry Moly Fluid is also available in paste form – see Dry Moly Paste, and aerosol form – see Dry Moly Spray.

Typical Applications

- ROCOL Dry Moly Fluid is ideal for use as an assembly lubricant for sliding mechanisms, plain bearings and other applications where a totally dry film lubricant is required.
- ROCOL Dry Moly Spray can also be used as a dry film chain lubricant where wet films cannot be tolerated.

Features and Benefits

- Temperature range (applied film) -50°C to +450°C.
- Dry film lubrication – resists pick-up of contaminants.
- Prevents galling, pick up and seizure.
- Resistant to high loads (up to 7,000 kg/cm^2).
- Excellent wear resistance (high molybdenum disulphide content).

Directions for Storage and Use

- Dip, spray or brush application.
- Ensure surfaces to be treated are clean, dry and free from oil, grease or dirt contamination.
- Highly flammable product - use only in well ventilated areas, and ensure there are no sources of ignition.
- Keep Dry Moly Fluid well agitated and apply to component whilst still warm.
- Dry in oven at 80°C – 100°C for 30 mins and allow to cool, or cure for 3 hours at ambient (20°C).
- The cured film can be improved by lightly burnishing with a lint free cloth.
- Examine for untreated areas and reapply if necessary.
- For surfaces requiring a high degree of corrosion resistance it is advisable to apply to an anodized or phosphate surface.
- Also available as Dry Moly Paste for application as paste, and Dry Moly Spray for application by aerosol.
- The storage temperature should be kept below +50°C, and the storage area should be out of direct sunlight.
- Shelf life is 2 years from date of manufacture.
- NATO Stock Number 9150 99 282-6734

Pack Sizes

Pack Size	Part Code
5L	10205

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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

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Property	Test Method	Result
Appearance	**Visual**	**Thin blue-black applied film**
Solids	**N/A**	**Molybdenum disulphide**
Binder	**N/A**	**Organic resin**
Solvent	**N/A**	**Acetone/alcohol blend**
Drying Times:		
Touch Dry	**N/A**	**2-3 minutes**
Full Cure at 20°C	**N/A**	**Approximately 3 hours**
Full Cure at 80°C – 100°C	**N/A**	**30 mins in oven, then allow to cool**
Temperature Range (applied film)	**N/A**	**-50°C to +450°C**
Approximate Coverage	**N/A**	**8m²/l**
Resistance of Resin Bonding Agent in Applied Film	**N/A**	**Soluble in hot oil and come common solvents**

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	0.085	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.

For further guidance, please speak to your usual ROCOL contact or technical.lubricants@rocol.com.

Issue: 2 Date: 10-16

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