

MOLYKOTE® D-321 R

Anti-Friction Coating

Air-curing dry-film lubricant

Features & benefits

- Air drying
- Avoidance of stick-slip
- High aging resistance

Composition

- Solid lubricants
- Solvents
- Binder

Applications

For metal/metal combinations with slow to medium fast movements and high loads. Suitable for the permanent lubrication of highly stressed sliding guides with low sliding speeds, oscillating movements or intermittent operation. Used for improving the running-in process and for lubrication under high vacuum and at extreme temperatures. Used successfully for cylinder-head bolts, toaster guides, car mirror adjustment mechanisms, high voltage switches, for the running-in of highly stressed gear wheel. Emergency lubricant for parts of the rotor head of wind energy installations and for groove-free cold extrusion of steel.

How to use

Surface preparation

First, clean and degrease the surface that will be coated with MOLYKOTE® D-321 R Anti-Friction Coating. Phosphatization or sandblasting (180 grit) increases the adhesion and service life.

How to apply

Stir MOLYKOTE® D-321 R Anti-Friction Coating thoroughly before applying by spraying or brushing.

Recommended dry-film thickness: 5 to 20 µm.

Drying Time

After 5 minutes at 23°C, the applied film of MOLYKOTE® D-321 R Anti-Friction Coating is touch-dry; this process time can be reduced to 1 minute by exposing the coated part to hot air at 80°C.

Typical properties

Specification writers: These values are not intended for use in preparing specifications. Please contact your local MOLYKOTE® sales representative prior to writing specifications on this product.

Standard ⁽¹⁾	Test	Unit	Result
	Color		Gray-black

Physical properties

ISO 2431	Viscosity at 23°C (#3 cup)	seconds	23
DIN 53217/2	Density at 20°C	g/ml	1.07
CTM 0242 I	Nonvolatile content	%	29

Temperature

Service temperature range	°C	-180 to 450
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Load-carrying capacity, wear protection, service life

ASTM D2625	Falex load-carrying capacity ⁽²⁾	N	b = 4,500 p = 12,500 s = 6,800
ASTM D2714	LFW-I, rotating ⁽²⁾ F = 2,860 N, n = 72 minutes ⁽²⁾ , V = 7.9 m/minute No. of revolutions x 1,000 to µ = 0.1		b = 212 p = 146 s = 306

⁽¹⁾ISO: International Standardization Organization DIN: Deutsche Industrie Norm. CTM: Corporate Test Method, copies of CTMs are available on request. ASTM: American Society for Testing and Materials
⁽²⁾Surface pretreatment: b = blank, p = phosphated, s = sand blasted.

Curing time

After a curing time period of 2 hours at 23°C, the dry film of MOLYKOTE® D-321 R Anti-Friction Coating can perform the best lubrication properties.

Solubility

Thinning can be carried out using MOLYKOTE® L-13 Thinner.

Handling precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Usable life and storage

When stored between 5 and 35°C in the original unopened containers, this product has a usable life of 24 months from the date of production.

Packaging

This product is available in different standard container sizes. Detailed container size information should be obtained from your nearest MOLYKOTE® sales office or MOLYKOTE® distributor.

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