

# Product Information

## High Performance Lubricants

DOW CORNING

# MOLYKOTE® D 321 R

## Anti-friction Coating

### FEATURES

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

### COMPOSITION

- Solid lubricants
- Solvents
- Binder

### Air-curing dry lubricant

### 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.
- 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.

### TYPICAL PROPERTIES

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

Standard*	Test	Unit	Result
	Color		Grey-black
	<b>Physical properties</b>		
DIN 53211/3	Viscosity at 20°C (DIN3 cup)	s	
DIN 53217/2	Density at 20°C	g/ml	1.07
CTM 0242 I	Nonvolatile content	%	29
	Storage life	months	24
	<b>Temperature</b>		
	Curing time	min/°C	5/23
	Service temperature range	°C	-180 to +450
	<b>Load-carrying capacity, wear protection, service life</b>		
ASTM-D2625	Falex load-carrying capacity <sup>1</sup>	N	b =4500 p=12500 s=6800
ASTM-D2714	LFW-1, rotating <sup>1</sup> F=2860N, n=72 minutes <sup>a1</sup> , v=7.9m/minutes		b = 212 p=146
ASTM-D2714	no. of revolutions x1000 to $\mu=0.1$		s=306
ASTM-D2714	LFW-1, oscillating <sup>1</sup> F=900N, frequency=89.5osc./minutes		b = 178 p = 400
	no. of oscillations to $\mu=0.08$		s = 362

## TYPICAL PROPERTIES (continued)

Standard*	Test	Unit	Result
	<b>Coefficient of friction</b>		
	Press-Fit test, $\mu =$		0.075

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

### HOW TO USE

#### Surface preparation

First clean and degrease the surface which 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 the Anti-Friction Coating thoroughly before applying by spraying or brushing.

Recommended dry film thickness:  
5 to 20 $\mu$ m.

#### Curing

5 minutes at 23°C

#### Solubility

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

### HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

### USABLE LIFE AND STORAGE

When stored at or below 20°C in the original unopened containers, MOLYKOTE D 321 R Anti-Friction Coating 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 Dow Corning sales office or Dow Corning distributor.

### LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

### HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

### WARRANTY INFORMATION - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as

warranted. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.