

# *Molykote*<sup>®</sup> **D-7409 Anti-Friction Coating**

## **FEATURES**

- Outstanding lubrication, coupled with corrosion protection properties
- High load carrying capacity
- High wear resistance
- High temperature resistance
- Resistant to oil, grease, solvents
- Avoidance of fretting corrosion

## **COMPOSITION**

- Solid lubricants
- Organic binder
- Organic solvents

Heat-curing dry film lubricant

## **APPLICATIONS**

- For metal/metal combinations with slow to moderately fast movements and moderate to high loads.
- Suitable for highly stressed sliding areas with low sliding speeds, oscillating movements or intermittent operations.
- For permanent lubrication at high temperatures and also where oils and greases cannot be used.
- Used successfully for piston rings and tappets of combustion engines, magnetic armatures of vehicle starter motors, bonnet lock components.

## **TYPICAL PROPERTIES**

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

<b>Standard</b>	<b>Test</b>	<b>Unit</b>	<b>Result</b>
	Color		Greyish black
	Service temperature range	°C	-70 to +300
		°F	-94 to +572
	<b>Physical properties</b>		
ASTM-D 1084 Method B	Dynamic viscosity at 23°C (73°F)	mPas	400
ASTM-D 1475	Density at 23°C (73°F)	g/ml	1.17
ASTM-D 56	Flash point	°C	35
		°F	95
	<b>Load-carrying capacity, wear protection, service life</b>		
ASTM-D 2625	Falex, procedure B, load-carrying capacity	N	s=8700
ASTM-D 2714	Falex LFW-1, oscillating load=980N, frequency=89.5osc./minutes no. of oscillations to $\mu=0.08$	N	p <sub>(1)</sub> =11100 p <sub>(1)</sub> =228000 p <sub>(2)</sub> =153000
ASTM-D 7217	SRV, Load-carrying capacity ball/disc, load ramp=10N/3min speed=80mm/s, 50°C (122°F), 40% rel.humidity	MPa	s=158000 p <sub>(1)</sub> =2500 p <sub>(2)</sub> =2300 s=1900
DIN 51834	SRV, Endurance life ball/disc, load 15N (1160 MPa) speed=40mm/s, 50°C, (122°F), 40% rel.humidity	h	p <sub>(1)</sub> >12 p <sub>(2)</sub> >12
	<b>Resistances</b>		
ASTM-B 117	Corrosion resistance without red rust (steel substrate, spraying, film thickness 15 $\mu$ m) (1)	h	p <sub>(2)</sub> =250
DIN 50021			

Surface pretreatment: p (1)=Mn-phosphated, p(2)=Zn-phosphated, s=sand blasted.

ASTM: American Society for Testing and Materials.

DIN: Deutsche Industrie Norm.

(1) = as the performance in corrosion protection is affected by the geometry of the parts, by the pretreatment of the surface, by the application method and by the thickness of the applied dry film Dow Corning recommends customers to run trials on original parts before setting specifications

## HOW TO USE

### Surface preparation

Carefully clean and degrease the surface which will be coated with the Anti-Friction Coating.

Recommended pre-treatments: phosphating or sandblasting (180 grid); both pre-treatments increase the adhesion and service life of the Anti-Friction Coating.

### How to apply

Stir the Anti-Friction Coating thoroughly before and during use, apply by spraying (air pressure 3 to 5 bar [45 to 75 psi]), dipping, centrifuging or brushing. Surfaces should be coated as evenly as possible. Recommended dry film thickness: 5 to 20 µm.

### Coverage

When applied at a 10 µm dry film thickness *Molykote*<sup>®</sup> D-7409 Anti-Friction Coating has a coverage of approx. 16 m<sup>2</sup>/kg (this value does not take into account the losses generated during the application process).

### Thinner

Recommended thinner is *Molykote*<sup>®</sup> 7415 Thinner.

### Curing

Typical curing conditions at object temperature are: 30 minutes at 220°C (for optional curing schedules at lower temperatures contact your local Dow Corning representative).

## 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 temperatures between 5°C (41°F) and 23°C (73°F), in the original unopened containers, *Molykote* D-7409 Anti-Friction Coating has a usable life of 36 months from the date of production.

## PACKAGING INFORMATION

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 Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our Web site, [dowcorning.com](http://dowcorning.com) or consult your local Dow Corning representative.

## LIMITED 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 our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the 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.**

**DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

*We help you invent the future.* <sup>TM</sup>

[molykote.com](http://molykote.com)