

# **Molykote<sup>®</sup> D-10-GBL Anti-Friction Coating**

## **FEATURES**

- Excellent resistance to oil, grease, gasoline, diesel and solvents
- Long-term wear protection
- Highly viscous and suitable for screen-printing
- High temperature resistance

## **COMPOSITION**

- Solid lubricants
- Organic binder
- Solvent

Heat-curing dry film lubricant

## **APPLICATIONS**

- For metal/metal combinations involving slow to medium speeds and low to medium loads.
- Suitable for the permanent lubrication of heavily loaded friction contacts involving low to high speeds, in direct contact with motor oils, gasoline, diesel or grease.
- Used in automotive applications like pistons of internal gasoline and diesel combustion engines, compressors and piston pumps, pneumatic and hydraulic systems; and other applications that require help to reduce piston and cylinder wall wear during break-in, cold-start and ongoing operation situations.

## **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>Test*</b>	<b>Property</b>	<b>Unit</b>	<b>Result</b>
	Color		Grey-black
	Service temperature range (cured dry film)	°C	-40 to +340
		°F	-40 to +644
	<b>Physical properties</b>		
ASTM-D 1084 Method B	Dynamic viscosity at 23°C (73°F)	mPas	35000
ASTM-D 1475	Density at 23°C (73°F)	g/ml	1.30
ASTM-D 56	Flash point	°C	77
		°F	171
	<b>Load-carrying capacity, wear protection, service life<sup>1</sup></b>		
ASTM-D 2625	Falex, procedure B, load-carrying capacity	N	p <sub>(1)</sub> =5500
DIN 51834	SRV, Endurance life	h	s > 12
	cylinder/disc, load 50 N (150 MPa)	μ	0.12
	speed=120 mm/s, 50°C, (122°F), 40% relative humidity, 3 drops engine oil		

\*CTM: Corporate Test Method, copies of CTMs are available on request.

DIN: Deutsche Industrie Norm.

ASTM: American Society for Testing and Materials.

<sup>1</sup>Surface Pretreatment: p<sub>(1)</sub>=Mn-phosphated, s=sand blasted, μ = coefficient of friction

## **HOW TO USE**

### **Surface preparation**

First clean and degrease thoroughly the surface which will be coated with *Molykote<sup>®</sup> D-10-GBL Anti-Friction Coating*. Phosphating or sandblasting (180 grid) increases the adhesion and service life.

### **How to apply**

Stir the *Molykote D-10-GBL Anti-Friction Coating* thoroughly before applying by screen printing. Recommended dry film thickness: 15 to 20μm.

It can also be applied by other processes like spraying, brushing; in this case depending on the application process the Anti-Friction Coating should be diluted to the suitable application viscosity.

### **Curing**

Typical curing schedule at object temperature is 20 minutes at 200°C (392°F). A flash-off of the solvent for 10 min at 80°C (176°F) prior high temperature curing is recommended. Actual curing times vary with substrate material, size, mass, coating thickness and type of curing oven; to assure proper cure and adhesion of the Anti-Friction Coating specific tests should be performed before fixing application process specifications.

### **Thinner**

Thinning (viscosity adjustment) can be carried out by using the solvent GBL (Gamma-Butyrolactone – CAS # 96-48-0).

### **Coverage**

When applied at 20 µm dry film thickness *Molykote*® D-10-GBL Anti-Friction Coating has a coverage of approximately 15 m<sup>2</sup>/kg (this value does not take into account the losses generated during the application process).

## **HANDLING**

### **PRECAUTIONS**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEB SITE AT DOW CORNING.COM, OR FROM YOUR DOW CORNING SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

## **USABLE LIFE AND STORAGE**

When stored at or below 23°C (73°F) in the original unopened containers *Molykote* D-10-GBL Anti-Friction Coating has a usable life of 12 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.

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