

MOLYKOTE® D-96 Anti-Friction Coating

Air-curing dry-film lubricant

Features & benefits

- Excellent “anti-squeak” performance
- Low coefficient of friction
- Constant coefficient of friction at different temperatures
- Water-based
- Does not contain NMP and APEO
- Transparent coating

Composition

- Solid lubricants
- Organic binder
- Water
- Stabilizer

Applications

Eliminates noise on interior automotive components such as door panels, decorative trims, arm rests, central consoles, dashboards, glove boxes, etc., as well as leather equipment. Suitable for material combinations car paint/plastic, plastic/plastic, plastic/metal, car paint/leather, plastic/leather, leather/leather with slow movements or vibrations at low loads.

How to use

Surface preparation

First, clean and degrease the surface which will be coated with MOLYKOTE® D-96 Anti-Friction Coating.

How to apply

Stir MOLYKOTE® D-96 Anti-Friction Coating thoroughly before applying by spraying, dip-spinning or brushing.

Recommended dry-film thickness: 5 to 20 µm.

Curing

After 10 minutes at room temperature (23°C, 73°F), the wet film of MOLYKOTE® D-96 Anti-Friction Coating is touch-dry and the coated parts can be handled; the drying time can be reduced to 2 minutes with hot air at 60/80°C (140/176°F); after 120 minutes at 23°C (73°F), the dry film is fully cured and it can be fully loaded.

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 (dry film)		Transparent
	Service temperature range	°C °F	-40 to 150 -40 to 302

Physical properties			
DIN EN ISO 2431	Viscosity at 23°C (73°F) cup #4	s	41
ASTM D1475	Density at 23°C (73°F)	g/ml	1.33
VDA 278	Thermal desorption, emissions, NMP content	ppm	0

Anti-noise			
VDA 230-206	Anti-noise tester, speed 2 mm/s, temperature 23°C (73°F), rel. humidity 40%, different loads: 2, 5, 10, 20 and 30 N		
	<i>Material pairing:</i>	<i>RPN⁽²⁾</i>	<i>Noise</i>
	Car paint vs PVC foil 1 mm thick	1	None
	Car paint vs PVC foil 2.5 mm thick	1	None
	Car paint vs TPO foil 1 mm thick	1	None
	PVC foil 1 mm vs PVC foil 1 mm thick	1	None
	PC-ABS vs PVC foil 1 mm thick	1	None
	Car paint vs leather	1	None
	Leather vs leather	1	None
	PC-ABS vs leather	1	None

VDA 230-206	Anti-noise tester, durability test = 100,000 cycles, speed 2 mm/s, temperature 23°C (73°F), rel. humidity 40%, load 20 N,		
	<i>Material pairing:</i>	<i>RPN⁽²⁾</i>	<i>Noise</i>
	PVC foil 1 mm thick vs PC-ABS	1	None

⁽¹⁾DIN: Deutsche Industrie Norm. ISO: International Standardization Organization. ASTM: American Society for Testing and Materials. VDA: Verband der Automobilindustrie.

⁽²⁾RPN: Risk priority number.

Typical properties (continued)

Standard ⁽¹⁾	Test	Unit	Result
Coefficient of friction (μ)			
Anti-noise tester, speed 2 mm/s, temperature 23°C (73°F), rel. humidity 40%, load 20 N			
	Material pairing:	$\mu^{(1)}$ -static	μ -dynamic
	Car paint vs PVC foil 1 mm thick	0.40	0.27
	Car paint vs PVC foil 2.5 mm thick	0.29	0.19
	Car paint vs TPO foil 1 mm thick	0.22	0.13
	PVC foil 1 mm vs PVC foil 1 mm thick	0.32	0.21
	PC-ABS vs PVC foil 1 mm thick	0.31	0.20
	Car paint vs leather	0.25	0.19
	Leather vs leather	0.29	0.15
	PC-ABS vs leather	0.24	0.14
Oscillating tester, speed 10 mm/s, load 2 N, temperature 23°C (73°F), rel. humidity 40%			
	Material pairing	μ -static	μ -dynamic
	POM ball vs PVC foil 1 mm thick	0.30	0.158
	POM ball vs TPO foil 1 mm thick	0.30	0.088

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Thinner

MOLYKOTE® D-96 Anti-Friction Coating is ready to use for spraying; thinning (viscosity adjustment) can be carried out by using distilled water or tap water. Water or a mixture of DPM (CAS # 34590-94-8) or TPM (CAS #25498-49-1) in water (up to 20%) can be used for cleaning the application equipment components.

Coverage

When applied at 12 μ m dry-film thickness MOLYKOTE® D-96 Anti-Friction Coating has a coverage of approx. 20 m²/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 SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION.

Usable life and storage

When stored at 23°C (73°F) in the original unopened containers, this product has a usable life of 12 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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