

MOLYKOTE® 3400A AERO Anti-Friction Coating

Heat-curing dry-film lubricant for metal/metal material pairings involving slow to medium-fast movements and medium to heavy loads

Features & benefits

- Excellent lubrication
- High load-carrying capacity
- Excellent adhesion to metals
- Low coefficient of friction
- High resistance to oils and fuels
- Good corrosion protection

Composition

- Solid lubricants
- Organic binders
- Organic solvents

Applications

Suitable for permanent lubrication, with simultaneous corrosion protection of friction contacts involving high loads and low speed. Used wherever oils or greases cannot be used for technical reasons or are undesirable because of the risk of soiling.

How to use

Surface preparation

Carefully clean and degrease surfaces to be coated with the MOLYKOTE® 3400A AERO Anti-Friction Coating.

Recommended pretreatments: blasting or phosphating. Both pretreatments increase the adhesion and service life of the MOLYKOTE® 3400A AERO Anti-Friction Coating.

How to apply

Stir the MOLYKOTE® 3400A AERO Anti-Friction Coating thoroughly before and during use. Apply by spraying, dipping, or dip-spinning. Surfaces should be coated as evenly as possible. Recommended dry-film thickness: 5 to 20 µm.

Coverage

When applied at 10 µm dry-film thickness, MOLYKOTE® 3400A AERO Anti-Friction Coating has a coverage of approximately 16 m²/kg (this value does not take into account the losses generated during the application process).

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 | | Dark gray |
| | Service temperature range | °C °F | -200 to 260 -328 to 500 |

| Physical properties | | | |
|---------------------|----------------------------------|----------|----------|
| ASTM D1475 | Density at 23°C (73°F) | g/ml | 1.1 |
| EN ISO DIN 2431 | Viscosity, cup #3 at 23°C (73°F) | s | 38 |
| ASTM D56 | Flash point | °C °F | 10 50 |

| Load-carrying capacity, wear protection, service life | | | |
|---|---|----------|---|
| ASTM D2714 | LFW-1, rotating, load 2,860 N, n = 72 rpm, v = 7.9 m/min, no. of revolutions to µ = 0.1 | | p = 158,000 ⁽²⁾ |
| ASTM D2714 | LFW-1, oscillating, load 900 N, frequency = 89.5 osc./min., no. of oscillations to µ = 0.08 | | p = 140,000 ⁽²⁾ |
| ASTM D2625 | Falex, procedure B, load-carrying capacity | N lbf | p = 20,000 ⁽²⁾ p = 4,500 ⁽²⁾ |
| ASTM D2625 | Falex, procedure A, endurance life average at 4,450 N load | min. | p >450 ⁽²⁾ |

⁽¹⁾ASTM: American Society for Testing and Materials. DIN: Deutsche Industrie Norm.

⁽²⁾p = surface pre-treatment = Mn-phosphating.

⁽³⁾p = surface pre-treatment = Zn-phosphating.

⁽⁴⁾List of tested aviation fluids is available upon request.

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Typical properties (continued)

| Standard ⁽¹⁾ | Test | Unit | Result |
|-------------------------|---|------|----------------------------|
| Resistances | | | |
| ASTM B117 DIN 50021 | Corrosion resistance without red rust (steel substrate, spraying application, film thickness = 10 µm) | h | p = min 100 ⁽³⁾ |
| ASTM D2510 | Fluid resistance against typical aviation fluids, Proc. C ⁽⁴⁾ | | No adhesion loss |
| ASTM D2510 | Film adhesion, Proc. A | | No adhesion loss |

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⁽²⁾p = surface pre-treatment = Mn-phosphating.

⁽³⁾p = surface pre-treatment = Zn-phosphating.

⁽⁴⁾List of tested aviation fluids is available upon request.

Thinner

Recommended thinner is MOLYKOTE® L 13 Thinner.

Curing

Typical curing conditions at object temperature: 30 min. at 200°C (392°F) or 60 min. at 150°C (302°F).

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 temperatures between 0°C (32°F) and 23°C (73°F) in the original unopened containers, this product has a usable life of 24 months from date of manufacture.

Packaging

This product is available in 1 kg cans.

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