MOLYKOTE® D-321 R
Anti-Friction Coating
Air-curing dry-film lubricant

Features & benefits
• Air drying
• Avoidance of stick-slip
• High aging resistance

Composition
• Solid lubricants
• Solvents
• Binder

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. Used for 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.

How to use
Surface preparation
First, clean and degrease the surface that 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 MOLYKOTE® D-321 R Anti-Friction Coating thoroughly before applying by spraying or brushing.

Recommended dry-film thickness: 5 to 20 µm.

Drying Time
After 5 minutes at 23°C, the applied film of MOLYKOTE® D-321 R Anti-Friction Coating is touch-dry; this process time can be reduced to 1 minute by exposing the coated part to hot air at 80°C.

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.

<table>
<thead>
<tr>
<th>Standard(1)</th>
<th>Test</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Gray-black</td>
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Physical properties

<table>
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<th>Standard</th>
<th>Test</th>
<th>Unit</th>
<th>Result</th>
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<tbody>
<tr>
<td>ISO 2431</td>
<td>Viscosity at 23°C (#3 cup)</td>
<td>seconds</td>
<td>23</td>
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<tr>
<td>DIN 53217/2</td>
<td>Density at 20°C</td>
<td>g/ml</td>
<td>1.07</td>
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<tr>
<td>CTM 0242 I</td>
<td>Nonvolatile content</td>
<td>%</td>
<td>29</td>
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</table>

Temperature

<table>
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<th>Standard</th>
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<th>Unit</th>
<th>Result</th>
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<tbody>
<tr>
<td>ASTM D2625</td>
<td>Falex load-carrying capacity(2)</td>
<td>N</td>
<td>b = 4,500</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>p = 12,500</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>s = 6,800</td>
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<td>ASTM D2714</td>
<td>LFW-I, rotating(2)</td>
<td>N</td>
<td>b = 212</td>
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<td></td>
<td></td>
<td></td>
<td>p = 146</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>s = 306</td>
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</tbody>
</table>

Load-carrying capacity, wear protection, service life

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

Curing time
After a curing time period of 2 hours at 23°C, the dry film of MOLYKOTE® D-321 R Anti-Friction Coating can perform the best lubrication properties.

Solubility
Thinning can be carried out using MOLYKOTE® L-13 Thinner.
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 between 5 and 35°C in the original unopened containers, this product 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 MOLYKOTE® sales office or MOLYKOTE® distributor.