

MOLYKOTE® Specialty Lubricants for the railway industry

Long-lasting high-performance lubrication ensures outstanding reliability & great uptime

Ensuring outstanding reliability & great uptime of rail transport

For global logistics and the transportation of people, it is essential to have a well-maintained railway infrastructure. MOLYKOTE® Specialty Lubricants can help reduce failures associated with wear, friction, seizing and weathering issues by providing long-lasting high-performance lubrication – even under harsh environmental conditions, such as dust and extreme temperatures. Our experts can identify the best lubricant for your needs to extend the lifetime of your components and limit maintenance, thus reducing the total cost of ownership.

7 Bellows/seals

Bellows between cars

- MOLYKOTE® 557 Silicone Dry Film Lubricant⁽¹⁾ or MOLYKOTE® L-8030M Semi-Dry Lubricant

Other seals

- MOLYKOTE® 33 Medium Extreme Low Temperature Grease, MOLYKOTE® 111 Compound or MOLYKOTE® 55 O-Ring Grease

6 Door

Hinges

- MOLYKOTE® 3402-C LF Anti-Friction Coating



8 Hydrogen train

Seals, valves & threads along hydrogen feed pipe

- MOLYKOTE® HP-300 Grease



5 Pantograph

Insulator

- MOLYKOTE® 4 Compound

Moving parts

- MOLYKOTE® P-40 (S) Paste

1 Bogie

Wheel assembly

- MOLYKOTE® G-N PLUS Paste or MOLYKOTE® G-Rapid Plus Paste⁽¹⁾

Bearings

- MOLYKOTE® Longterm 2 Plus Extreme Pressure Bearing Grease, MOLYKOTE® BR-2 Plus High Performance Grease or MOLYKOTE® BG-20 Synthetic Bearing Grease

Brakes

- **Brake disc assembly:** MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾
- **Hydraulic brake cylinder:** MOLYKOTE® Longterm 00 Semi-Fluid Gearbox Grease
- **Brake unit connectors:** MOLYKOTE® Longterm 2 Plus Extreme Pressure Bearing Grease
- **Threaded connections:** MOLYKOTE® P-40 (S) Paste or MOLYKOTE® Cu-7439 Plus Paste V1⁽¹⁾

Suspension gear

- **Turning bolt:** MOLYKOTE® P-40 (S) Paste

2 Track

Railway joints

- **Bolts:** MOLYKOTE® Cu-7439 Plus Paste V1⁽¹⁾ or MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾
- **Joints & fishplate:** MOLYKOTE® 3400A Anti-Friction Coating LF or MOLYKOTE® P-40 (S) Paste
- **Switch expansion joints, elastic-rail clips & rubber pads:** MOLYKOTE® P-40 (S) Paste

Signals

- **Moving parts:** MOLYKOTE® X Grease Paste
- **HV connectors:** MOLYKOTE® 3099 HVIC Compound

Rail rollers

- MOLYKOTE® 3400A Anti-Friction Coating LF or MOLYKOTE® D-7409 Anti-Friction Coating

Bridge bearings

- MOLYKOTE® PG-21 Silicone Grease or MOLYKOTE® G-807 Low Friction Silicone Compound

3 Coupler

3 Coupler

Threaded connections

- MOLYKOTE® G-Rapid Plus Paste⁽¹⁾

Pin

- MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾

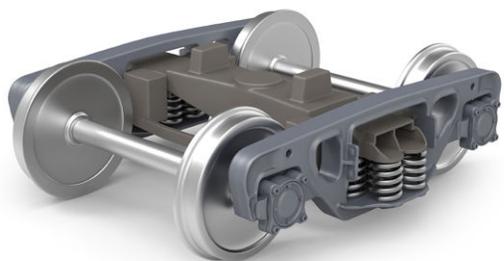
4 Cooling

Fan

- **Lower bearing:** MOLYKOTE® HP-300 Grease

⁽¹⁾Spray version also available.

BOGIE



Wheel assembly

MOLYKOTE® G-N PLUS Paste or MOLYKOTE® G-Rapid Plus Paste⁽¹⁾

- Facilitate press-fit assembly
- Lower friction
- Suppress stick-slip
- Prevent fretting corrosion

Bearings

MOLYKOTE® Longterm 2 Plus Extreme Pressure Bearing Grease, MOLYKOTE® BR-2 Plus High Performance Grease or MOLYKOTE® BG-20 Synthetic Bearing Grease

- Reduce friction & wear
- Increase lifetime

Brakes

Brake disc assembly

MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾

- Lowers friction
- Prevents stick-slip

Hydraulic brake cylinder

MOLYKOTE® Longterm 00 Semi-Fluid Gearbox Grease

- Reduces friction & wear
- Increases lifetime

Brake unit connectors

MOLYKOTE® Longterm 2 Plus Extreme Pressure Bearing Grease

- Reduces friction & wear
- Increases lifetime

Threaded connections

MOLYKOTE® P-40 (S) Paste or MOLYKOTE® Cu-7439 Plus Paste V1⁽¹⁾

- Ensure proper tightening & release torque
- Consistent coefficient of friction
- Prevent seizing
- Enable multiple assembly & disassembly cycles
- Provide additional corrosion protection

Suspension gear

Turning bolt

MOLYKOTE® P-40 (S) Paste

- See "Threaded connections" under "Brakes" above

COUPLER



Pin

MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾

- Reduces friction & wear
- Prevents fretting corrosion & seizing
- Not affected by dust

Bolts

MOLYKOTE® G-Rapid Plus Paste⁽¹⁾

- Consistent coefficient of friction
- Prevents fretting corrosion & seizing
- Enables multiple assembly & disassembly cycles
- Provides additional corrosion protection

PANTOGRAPH



Insulator

MOLYKOTE® 4 Compound

- Increases insulation
- Increases corrosion protection
- Reduces wear
- Weather resistance

Moving parts

MOLYKOTE® P-40 (S) Paste

- Reduces wear & friction
- Weather resistance
- Increases lifetime

COOLING FAN



Lower bearing

MOLYKOTE® HP-300 Grease

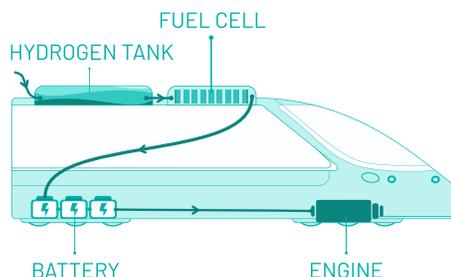
- Reduces friction & wear at high temperatures
- Increases lifetime

HYDROGEN TRAIN

Seals & threaded connections along hydrogen feed pipe

MOLYKOTE® HP-300 Grease

- Reduces contamination of hydrogen
- Improves sealing performance
- Reduces friction & wear
- Prevents seizing of threaded connections



DOORS



Door hinges

MOLYKOTE® 3402-C LF Anti-Friction Coating

- Reduces friction & wear
- Increases lifetime
- Not affected by dust

⁽¹⁾Spray version also available.

BELLOWS/SEALS



Bellows between cars

MOLYKOTE® 557 Silicone Dry Film Lubricant⁽¹⁾ or
MOLYKOTE® L-8030M Semi-Dry Lubricant

- Reduce contamination from dust
- Reduce friction & wear
- Increase lifetime of seals

Other seals

MOLYKOTE® 33 Medium Extreme Low Temperature Grease,
MOLYKOTE® 111 Compound or **MOLYKOTE® 55 O-Ring Grease**

- Reduce friction & wear
- Improve sealing performance
- Increase lifetime of seals

TRACK



Bolts

MOLYKOTE® Cu-7439 Plus Paste V1⁽¹⁾ or **MOLYKOTE® D-321 R Anti-Friction Coating⁽¹⁾**

- Ensure proper tightening & release torque
- Consistent coefficient of friction
- Prevent seizing
- Enable multiple assembly & disassembly cycles
- Provide additional corrosion protection



Railway joints & fishplates

MOLYKOTE® 3400A Anti-Friction Coating LF or
MOLYKOTE® P-40 (S) Paste

- Prevents fretting corrosion
- Reduce wear



Switch expansion, elastic-rail clips & rubber pads

MOLYKOTE® P-40 (S) Paste

- Prevents seizing
- Corrosion protection (excluding rubber pad)
- UV protection (rubber pad)
- Increases lifetime

Rail rollers

MOLYKOTE® 3400A Anti-Friction Coating LF or
MOLYKOTE® D-7409 Anti-Friction Coating

- Reduce wear; increased lifetime



Signals

Moving parts

MOLYKOTE® X Grease Paste

- Reduces friction & wear

HV connectors

MOLYKOTE® 3099 HVIC Compound

- Increased sealing performance (no short circuits)



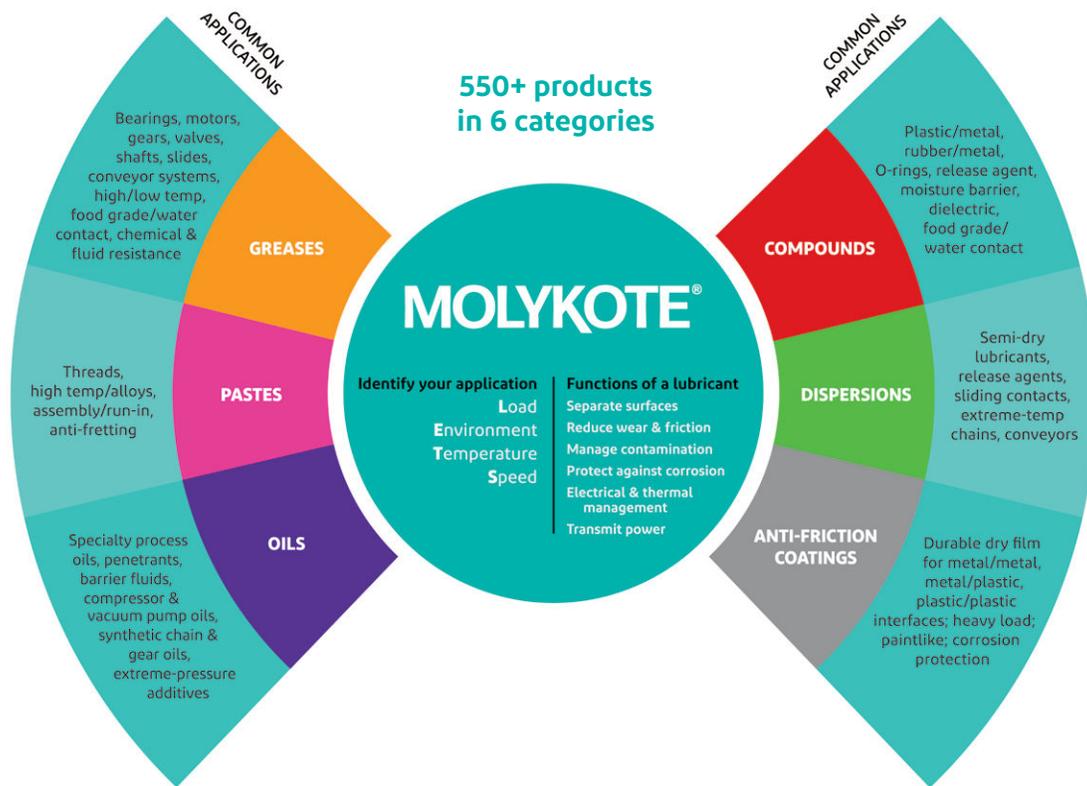
Bridge bearings

MOLYKOTE® PG-21 Silicone Grease or
MOLYKOTE® G-807 Low Friction Silicone Compound

- Reduce friction & wear to ensure proper expansion & contraction of bridges



⁽¹⁾Spray version also available.



For more information

Explore MOLYKOTE® products' technical data sheets (TDS):



Read our MOLYKOTE® Pastes brochure:



Read our MOLYKOTE® Anti-Friction Coatings brochure:



About MOLYKOTE® Specialty Lubricants

Since 1948, customers around the world have trusted the MOLYKOTE® brand for performance and expertise to help solve complex, technical design and lubrication challenges. To learn more about our extensive product and service offering, to utilize our interactive product selection tool, or to locate a distributor, visit [molykote.com](https://www.molykote.com).



We have Contact Centers around the globe. Find the phone number for the center nearest you at www.dupont.com/molykotecontact.



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