

MOLYKOTE®

DUPONT™

Smart Lubrication™
for vehicle exterior design



Design for lightweight styling durability

Meet your critical lubrication requirements for advanced vehicle exterior design with MOLYKOTE® brand specialty lubricants from DuPont. With our in-depth expertise, a heritage of innovation, problem-solving collaboration, and reliable global supply and technical support, these high-performance *Smart Lubrication™* solutions are precisely formulated and application-matched to help you achieve:

- **Energy efficiency** with reduced friction losses and increased wear control
- **Comfort and design** with enhanced smoothness and reduced noise and vibration
- **Safety** with added component reliability, less wear and more corrosion resistance
- **Sustainability** with increased process efficiency and durable component service life

Design for optimized handling performance with a choice of MOLYKOTE® brand *Smart Lubrication™* solutions:

- **Greases** with special additives to resist water washout, evaporation or oxidation
- **Silicone compounds** for light-load lubricating and sealing in extreme temperatures
- **Anti-seize pastes** with high levels of lubricating solids for heavy loads and slow speeds
- **Anti-friction coatings** for clean dry-film lubrication to control friction, wear and noise
- **Solids and powders** for plastics lubrication and specialized friction-control additives
- **Oils and dispersions** with performance additives in synthetic or mineral blends

Innovate with smart science

Proven, effective MOLYKOTE® brand *Smart Lubrication™* solutions can help you meet vehicle exterior design goals for durable styling innovation:

Reduce mass without compromising durability

- Sunroof, panoramic roof slides
- Sliding door, liftgate rails
- Adaptive front lighting systems (AFS) actuators and guides

Reduce squeaks, rattles and unwanted noise

- Mirrors, antennas
- Body-control actuators
- Windshield wiper motors and levers
- Control/release cables

Protect and lubricate vehicle security and access

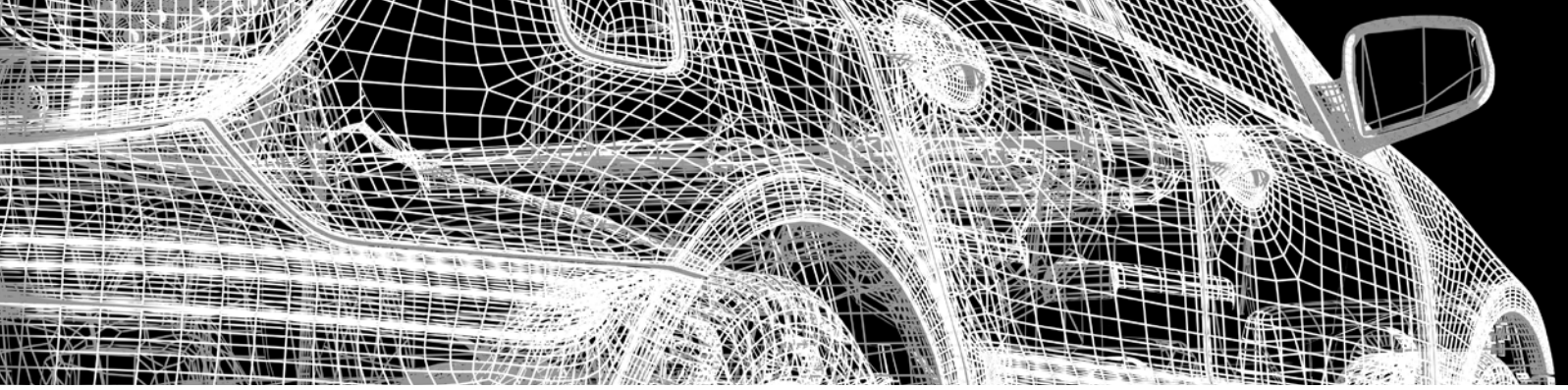
- Door entry, latching and locking systems
- Hood, trunk, liftgate and sliding door opening and latching mechanisms



Smart Lubrication™ selection guide: Exterior applications

APPLICATION	DESIGN NEED	POTENTIAL SOLUTION(S)	PRODUCT HIGHLIGHTS
Actuators, small motors	Reduced friction, wear and noise	MOLYKOTE® YM-102 Grease	Synthetic grease for lubrication of plastic components
		MOLYKOTE® EM-50L Grease	Synthetic grease with good noise-damping properties
AFS headlamp actuator	Extended lubricant service life	MOLYKOTE® L-8030 Lubricant	Solid lubricants in fluorinated solvent form quick-drying, nontacky lubricating film
Linear guides and slides	Reduced friction, wear and noise	MOLYKOTE® AI-6159 Grease	Synthetic grease with good lubrication for glass-fiber-reinforced plastics
		MOLYKOTE® G-1050 Grease	Synthetic grease with white solids beneficial for noise reduction
Locks, latches and levers	Protect against moisture, corrosion and seizure	MOLYKOTE® D-708 Anti-Friction Coating	Heat-cured, PTFE-based AFC with excellent corrosion protection
		MOLYKOTE® 3400A LF Anti-Friction Coating	Heat-cured, MoS ₂ -based AFC with excellent lubrication and corrosion protection
		MOLYKOTE® D-7409 Anti-Friction Coating	Heat-cured, MoS ₂ -based AFC with excellent lubrication properties
Mirror and door assemblies	Reduce squeaks and rattles	MOLYKOTE® EM-60L Grease	Synthetic grease suitable for low-temperature lubrication of plastics
Mirror adjustment	Improve service life, wear and smoothness	MOLYKOTE® E Paste	Synthetic paste with several types of special solid lubricants
		MOLYKOTE® YM-103 Grease	Synthetic grease with good load-carrying capacity and wear resistance
Sunroof/moonroof guide tracks	Reduced friction and wear; improved smoothness	MOLYKOTE® G-1023 Grease	Synthetic grease with good lubricity for glass-fiber-reinforced plastics
		MOLYKOTE® EM-50L Grease	Synthetic grease with good noise-damping properties
		MOLYKOTE® PG-75 Grease	Semi-synthetic grease for plastic-plastic and plastic-metal combinations
Wiper system motors	Extended lubricant service life	MOLYKOTE® MI-60 Grease	Synthetic PAO-based grease with solid lubricants for excellent plastics lubricity
Wiper lever system	Reduce wear and noise	MOLYKOTE® 111 Silicone Compound	Translucent silicone with excellent water resistance
Control/release cables	Reduce friction, sticking and wear	MOLYKOTE® 33 Light Extreme Low Temperature Grease	Silicone-based grease with excellent low-temperature resistance
		MOLYKOTE® G-72 Plastic Grease	Silicone-based grease with good plastic compatibility
Door/sunroof weatherseals	Improved sealing with less wear and sticking	MOLYKOTE® L-8030 Lubricant	Solid lubricants in fluorinated solvent form quick-drying, nontacky lubricating film
		MOLYKOTE® D-96 Anti-Friction Coating	Water-based AFC for squeak and stick-slip elimination
Fasteners, screws, bolts	Improved assembly with proper tightening torque	MOLYKOTE® D-7405 Anti-Friction Coating	Heat-cured AFC with solid lubricants for metal-plastic and metal-metal lubrication
		MOLYKOTE® D-708 Anti-Friction Coating	Heat-cured, PTFE-based AFC with excellent corrosion protection

NOTE: These are proven, effective MOLYKOTE® brand *Smart Lubrication*™ solutions for vehicle exterior design. Contact your MOLYKOTE® representative for product options to meet specialized requirements.



Sustainable design solutions

Enhance your design sustainability with MOLYKOTE® brand *Smart Lubrication*™ solutions from Dow Corning. To meet key exterior design needs, these advanced specialty lubrication technologies can be custom-formulated for specified performance characteristics, regulatory standards and process requirements. Raw materials include base oils such as silicone, mineral or polyalphaolefin (PAO); solid lubricants such as molybdenum disulfide (MoS₂) and polytetrafluoroethylene (PTFE); thickeners such as lithium; and various performance additives to inhibit rust, resist wear or withstand extreme pressure.

- MOLYKOTE® greases and anti-seize pastes add operating smoothness and reduce corrosion on sunroof guides, sliding door tracks, and latching or locking mechanisms.
- MOLYKOTE® anti-friction coatings speed clean assembly, ensure proper tightening and add long rust prevention when used to pre-coat threaded fasteners.

Smart Lubrication™ solutions for other vehicle systems

In addition to the MOLYKOTE® brand *Smart Lubrication*™ solutions for vehicle exterior design featured in this selection guide, DuPont also offers proven, effective lubricants for these vehicle systems:

- Chassis and brakes
- Electrical
- Interior
- Powertrain



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Learn more: Contact us

To learn more about MOLYKOTE® brand specialty lubricants and proven, effective *Smart Lubrication*™ solutions to drive styling durability innovation in vehicle exterior design, contact your MOLYKOTE® Technical Representative or visit molykote.com.