



Automotive and Transportation
Solutions



SMART LUBRICATION™ SOLUTIONS FOR VEHICLE ELECTRICAL SYSTEMS

Smart science drives connected reliability innovation



DESIGN FOR INCREASED ELECTRIFICATION, CONNECTIVITY & RELIABILITY

Meet your critical lubrication requirements for advanced electrical systems design with *Molykote*[®] brand specialty lubricants from Dow Corning, a wholly owned subsidiary of The Dow Chemical Company. 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 increased electrification, connectivity and reliability with a choice of *Molykote* brand *Smart Lubrication* solutions:

- **Greases** with special additives to resist water washout, evaporation and 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 electrical systems design goals for connected reliability innovation:

Reduce friction and wear; increase service life

- Alternator and fan clutch bearings
- Actuators and motors
- Engine and emission controls
- Starter motor gears, over-running clutches

Reduce squeaks, rattles, unwanted noise and vibrations

- Electric parking brake
- Switches, audio and media controls
- Window regulators

Improve assembly and disassembly

- Spark plug boots, ignition switches
- Threaded fasteners, clips
- Wiring harness connectors



MOLYKOTE[®]
FROM DOW CORNING



SMART LUBRICATION™ SELECTION GUIDE: ELECTRICAL SYSTEMS APPLICATIONS

APPLICATION	DESIGN NEED	POTENTIAL SOLUTION(S)	PRODUCT HIGHLIGHTS
Actuators, Motors	Reduced friction, wear and noise	<i>Molykote</i> ® YM-102 Grease	Synthetic PAO grease offers low seepage for lubricating plastic components
		<i>Molykote</i> ® EM-50L Grease	Synthetic grease with good noise-damping properties
Alternator, Fan Clutch Bearings	Provide long-term lubrication with reduced friction, wear and noise	<i>Molykote</i> ® FS-841 Grease	Low-consistency fluorosilicone grease for solvent-resistant, high-speed lubrication
		<i>Molykote</i> ® G-5025 Grease	Silicone grease for extended durability in over-running clutches
Diesel Engine Glow Plug Controllers	Improved water and corrosion resistance	<i>Dow Corning</i> ® 4 Electrical Insulating Compound	Greaselike silicone with good dielectric strength, water repellency, oxidation resistance
Electric Parking Brake	Long-term lubrication with improved performance	<i>Molykote</i> ® E Paste	Synthetic paste with several types of special solid lubricants
		<i>Molykote</i> ® D-708 Anti-Friction Coating	Heat-cured, PTFE-based AFC with excellent corrosion protection
Electronic Transmission Actuator	Reduced friction and corrosion potential	<i>Molykote</i> ® BR-2 Plus High Performance Grease	Mineral-oil-based grease with solid lubricants and extreme-pressure additives
Engine Throttle, Emission Controls	Reduce friction and wear	<i>Molykote</i> ® HP-300 Grease	PFPE grease with excellent heat, fuel and oil resistance
Fasteners, Clips	Proper torque, assembly ease	<i>Molykote</i> ® D-96 Anti-Friction Coating	Air-drying, water-based coating provides low coefficient of friction with light loads
Spark Plug Boots, Ignition Switches	Improved water resistance	<i>Molykote</i> ® G-5008 Dielectric Grease	Silicone grease designed for rubber and ceramic pairings
Starter Motor Gears, Spline Shaft, Clutch	Reduced friction, wear and noise	<i>Molykote</i> ® G-1021 Grease	Synthetic-oil-based grease for extremely low startup and running frictional resistance
		<i>Molykote</i> ® D-7409 Anti-Friction Coating	Heat-cured dry-film lubricant with excellent adhesion, corrosion protection and low friction, even at high temperatures
		<i>Molykote</i> ® 33L Extreme Low Temperature Grease	Silicone-based grease with excellent low-temperature resistance
		<i>Molykote</i> ® G-5025 Grease	Silicone grease for extended durability in over-running clutches
Switches, Audio and Media Controls	Enhanced smoothness and reduced noise	<i>Molykote</i> ® E Paste	Synthetic-oil-based paste with solid lubricants and excellent materials compatibility
		<i>Molykote</i> ® EM-30L Grease	Synthetic grease with PTFE or other solids for lubricating plastic components
		<i>Molykote</i> ® G-1057 Grease	Low-bleed synthetic grease with excellent plastics compatibility
Window Lift Regulators	Reduced friction, wear, vibration and noise	<i>Molykote</i> ® EM-60L Grease	Synthetic grease suitable for low-temperature lubrication of plastics
		<i>Molykote</i> ® 33L Extreme Low Temperature Grease	Silicone-based grease with excellent low-temperature resistance
Wiring/Harness Connections	Protection from moisture and fretting corrosion	<i>Molykote</i> ® L-8030 Grease	Solid lubricants in fluorinated solvent form quick-drying, nontacky lubricating film
		<i>Molykote</i> ® 111 Compound or <i>Dow Corning</i> ® 111 Compound	Greaselike silicone with excellent water resistance over a wide temperature range

NOTE: These are proven, effective *Molykote*® brand *Smart Lubrication*™ solutions and *Dow Corning*® brand solutions for vehicle electrical systems design. Contact your *Dow Corning* 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 electrical systems 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*[®] brand anti-friction coatings (AFCs) provide clean and dry long-term lubrication for starter motors, threaded fasteners and assembly clips.
- *Molykote*[®] brand specialty greases help reduce friction, wear, noise and corrosion on alternators, connectors, window regulators and adjustable-component actuators.

SMART LUBRICATION SOLUTIONS FOR OTHER VEHICLE SYSTEMS

In addition to the *Molykote* brand *Smart Lubrication* solutions for electrical systems design featured in this selection guide, Dow Corning also offers proven, effective lubricants for these vehicle systems:

- Chassis and brakes
- Exterior
- Interior
- Powertrain

LEARN MORE: CONTACT US

To learn more about *Molykote* brand specialty lubricants and proven, effective *Smart Lubrication* solutions to drive connected reliability innovation in vehicle electrical systems design, contact your Dow Corning Technical Representative, visit dowcorning.com/auto or send an email via dowcorning.com/ContactUs.

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