

Materials Innovation, Application Expertise, Global Service & Support



MEET SYSTEM
CHALLENGES.
FIND INNOVATIVE
SOLUTIONS.

DELIVER AUTOMOTIVE:

Safety • Reliability • Comfort and Aesthetics • Performance and Fuel Efficiency • Environmental Sustainability

Connect. Collaborate. Get problem-solving help.

How can we help you today? You need innovative technologies to turn vehicle system challenges into opportunities. And you can rely on Dow Corning for help. Put our application experts on the job. You can solve tough problems ... develop effective solutions ... and get the job done right. Get lasting performance with *Silastic*® silicone and fluorosilicone engineered elastomers, *Dow Corning*® silicone and fluorosilicone adhesive/sealants, and *Molykote*® brand *Smart Lubrication*™ solutions.

NEEDS & SOLUTIONS



Chassis & Brake Solutions

- Reduced NVH and component wear
- Improved braking, ride and handling
- Effective component seals and covers



Body & Lighting Solutions

- Smooth closure and lock operation
- Added durability and service life
- Reliable sealing and noise control



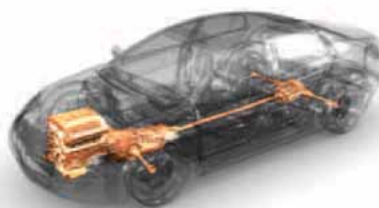
Vehicle Interior Solutions

- Quiet quality, comfort and convenience
- Improved inflatable-restraint performance
- Strong trim and component assembly
- NVH management and noise prevention



Electrical Solutions

- Economical connector sealing options
- Increased moisture and fault protection
- Improved insulating and lubrication



Powertrain Solutions

- Reliable engine sealing and gasketing
- Reduced mass, vibration, wear and noise
- Increased fuel economy and performance





MEET YOUR NEEDS:

- Improve braking performance “from the pedal to the pad”
- Enhance vehicle ride and handling
- Prevent squeaks and rattles (S&R)
- Protect and increase durability
- Increase sealing reliability



COLLABORATE. INNOVATE.

- Heat-resistant seals, dust boots and form-in-place gasketing (FIG)
- New greases for electric power steering and brake-by-wire actuators
- Squeak and rattle prevention
- Brake friction and wear control
- Tire reinforcing fillers to reduce rolling resistance and improve grip



ASK AN EXPERT

Identify your chassis and brake application needs. Get Dow Corning help.

- Brake friction control
- Brake system lubrication
- Steering lubrication
- Suspension lubrication
- Squeak and rattle prevention
- Dust covers and boots
- Seals and gaskets
- Other chassis and brake solutions



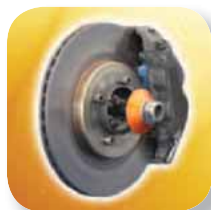
CHASSIS & BRAKE

Extend performance reliability and reduce wear and vibration

Proven solutions for chassis and brake applications. Turn your challenges into opportunities. Working with our Dow Corning problem-solving experts, you can:

- Fabricate heat-resistant dust covers and boots to protect components and extend service life with *Silastic* silicone and fluorosilicone engineered elastomers.
- Provide seals and gaskets that increase component durability in extreme temperatures and harsh environments using *Dow Corning* silicone and fluorosilicone adhesive/sealants.
- Control noise and vibration, reduce component wear, increase durability, and improve ride and handling with *Molykote* specialty lubricants, our *Smart Lubrication* solutions.

GET EXTENDED RELIABILITY



From pedal to pad, *Molykote*® specialty lubricants help improve reliability. Proven solutions are ready for pedal systems, hydraulic components, boosters, actuators, bearings, caliper pins and pad friction control.



Molykote® specialty lubricants add durability and help control NVH issues on steering linkages and electric power steering motors, while *Silastic*® elastomers provide high-temperature resistance for protective dust boots and covers.



BODY & LIGHTING

Increase sealing integrity and lubrication durability

Proven solutions for vehicle body and lighting applications. Turn your challenges into opportunities. Working with our Dow Corning problem-solving experts, you can:

- Create rugged vibration-isolation parts and fabricated seals and gaskets with *Silastic* silicone and fluorosilicone engineered elastomers.
- Bond and seal trim, components and lighting assemblies with *Dow Corning* adhesive/sealants that are more versatile and outperform organics in harsh environments.
- Smooth actuator operation; prevent lock corrosion; and reduce component noise, vibration and wear with *Molykote* brand *Smart Lubrication* solutions.

GET INCREASED DURABILITY



Wet-dispensed *Dow Corning*® silicone adhesive/sealants can provide strong bonding and reliable sealing on advanced, higher-temperature lighting assemblies. Durable fabricated seals can be produced using *Silastic*® silicone elastomers.



Protecting locks and closure mechanisms from moisture, dirt and corrosion is easy with proven *Molykote*® brand *Smart Lubrication*™ solutions.



MEET YOUR NEEDS:

- Improve lighting performance
- Increase comfort and convenience
- Protect and lubricate locks
- Prevent glazing itch and leaks



COLLABORATE. INNOVATE.

- Sealants that outperform organics
- Strong sealing and bonding for lighting and structural glazing
- High-performance lubrication for new lighting technologies
- Super-clear resins for lens use
- Wet-dispensed FIPG adhesives



ASK AN EXPERT

Identify your vehicle body and lighting application needs. Get Dow Corning help.

- Lighting system seals
- Body component lubrication
- NVH reduction
- Lock protection and lubrication
- Glazing sealants
- Other vehicle body and lighting solutions



MEET YOUR NEEDS:

- Increase comfort and perceived quality with NVH management
- Smooth operation and control free motion of adjustable components
- Improve airbag performance
- Eliminate stick-slip interior noise
- Strengthen component assemblies



COLLABORATE. INNOVATE.

- FIPG assembly of tough-to-bond complex-shaped components
- Advanced fabric coatings and seam sealants for inflatable restraints
- Specialized squeak-and-rattle protection for interior components
- Market-specific LSR elastomers
- New materials for seating systems, interior trims and apparel to enhance performance, appearance and style



ASK AN EXPERT

Identify your vehicle interior application needs. Get Dow Corning help.

- Noise and vibration damping
- Interior system component lubrication
- Airbag coating and seam sealing
- Airbag development help
- Stick-slip noise elimination
- Interior component bonding
- Other automotive interior solutions



VEHICLE INTERIOR

Secure occupant protection, quiet comfort and lasting quality

Proven solutions for vehicle interior applications. Turn your challenges into opportunities. Working with our Dow Corning problem-solving experts, you can:

- Improve airbag and inflatable-restraint quality, performance and processing efficiency using *Dow Corning*[®] elastomers for fabric coating and *Dow Corning* adhesive/sealants for seam sealing.
- Strengthen component assemblies with *Dow Corning* silicone adhesive/sealants that economically bond dissimilar materials and provide long-term resistance to heat, cold and UV rays.
- Improve NVH management and noise prevention, reduce squeaks and rattles, control adjustable components, and eliminate stick-slip noise with *Molykote* specialty lubricants.

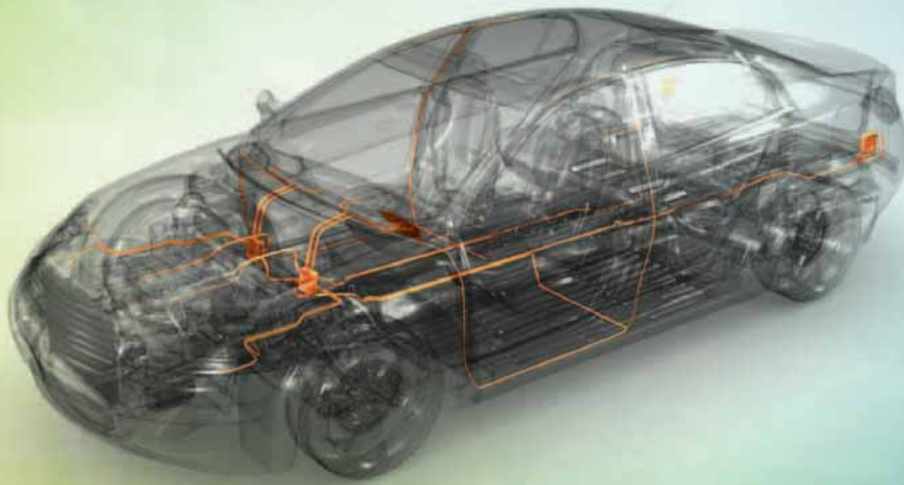
GET SECURED COMFORT



Dow Corning[®] fabric-coating elastomers, seam sealants and expert development assistance are available for today's full range of active-safety systems, including head, thorax and knee airbags; driver and passenger airbags; inflatable side curtains; and seat belts.



Quality is quiet. Eliminate interior NVH issues and prevent unwanted squeaks and rattles using *Molykote*[®] noise-damping lubricants and strong-bonding *Dow Corning*[®] adhesive/sealants.



ELECTRICAL

Protect electrical systems and components from faults and failure

Proven solutions for automotive electrical applications. Turn your challenges into opportunities. Working with our Dow Corning problem-solving experts, you can:

- Develop exact solutions for connector sealing reliability with a wide range of *Silastic* silicone and fluorosilicone rubber elastomers and *Dow Corning*[®] GT precured silicone gel pads and grommets.
- Bond and seal component covers and assemblies with *Dow Corning* silicone and fluorosilicone adhesive/sealants that are more versatile and durable than many organic sealants.
- Prevent intermittent faults caused by connector-contact fretting corrosion and improve component reliability and life with *Molykote* brand *Smart Lubrication* solutions.

GET PROTECTED PERFORMANCE



Silastic[®] LSR and F-LSR elastomers, including self-lubricating types, improve process efficiency for electrical connector seals. Robotically applied *Dow Corning*[®] GT sealing grommets and strips are ideal for sealing multiple-pin connectors.



For added electrical system reliability and service life, *Molykote*[®] brand *Smart Lubrication*[™] solutions are used on starter motors, alternators, integral starter-generator (ISG) bearings, wiper motors, electronic actuators, and plastic gears and cams.



MEET YOUR NEEDS:

- Protect electrical systems
- Insulate HV and EV high voltages
- Increase component reliability
- Prevent intermittent faults



COLLABORATE. INNOVATE.

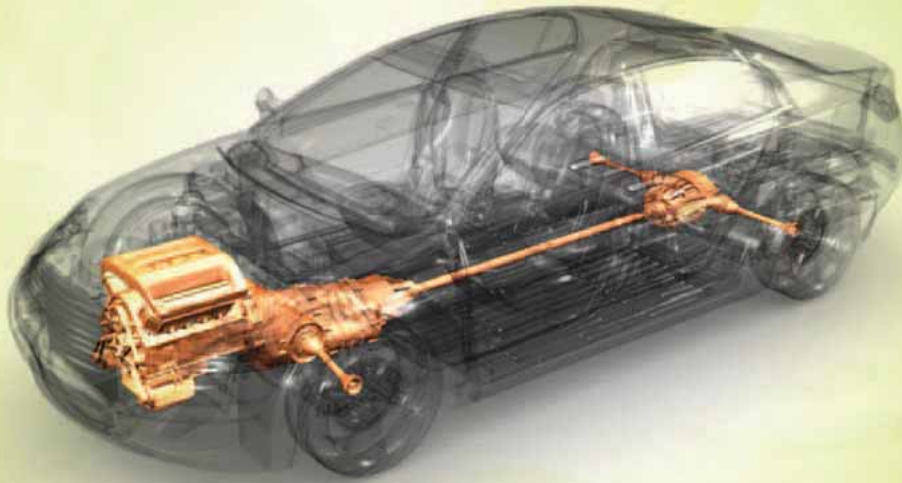
- Low-VOC silicone elastomers to meet environmental regulations
- Self-lubricating LSRs for lower-cost sealing of electrical connectors
- Deep-section potting compounds for hybrid and electric vehicles
- Self-healing precured gel strips for sealing of multiple-pin connectors



ASK AN EXPERT

Identify your electrical application needs. Get Dow Corning help.

- Connector seals and gaskets
- Sealing grommets and strips
- EV cable insulation
- Electrical system lubrication
- Intermittent fault protection
- Other electrical solutions



POWERTRAIN



MEET YOUR NEEDS:

- Increase sealing integrity
- Control noise, vibration and harshness (NVH)
- Boost fluid and air delivery
- Reduce wear and corrosion
- Improve system reliability
- Increase fuel economy and performance



COLLABORATE. INNOVATE.

- Piston anti-friction coatings for improved fuel economy
- Fluoro liquid silicone rubber (F-LSR) for fuel-system sealing
- Advanced NVH-control solutions
- Cure-in-place gaskets (CIPG)
- New lubricating fluids for reduced wear and improved efficiency

Improve sealing, fluid and air delivery, lubrication, and NVH control

Proven solutions for powertrain applications. Turn your challenges into opportunities. Working with our Dow Corning problem-solving experts, you can:

- Create durable seals, hoses, boots and connectors and rugged vibration-isolation parts with *Silastic* silicone and fluorosilicone engineered elastomers that do not require heat shields.
- Increase productivity, reduce assembly times, and improve durability of formed-in-place seals and gaskets with *Dow Corning* silicone and fluorosilicone adhesive/sealants.
- Reduce friction and wear, limit vibration and noise, aid run-in, and retard corrosion with *Molykote* brand *Smart Lubrication* specialty lubricants.



GET IMPROVED PERFORMANCE



Improved fuel economy and reduced engine wear and noise can be gained using special processes to apply a *Molykote*[®] anti-friction coating on piston skirts and rings.



Engine mounts and muffler hangers fabricated with *Silastic*[®] engineered elastomers can help control NVH and eliminate heat shields for mass savings.



Advanced turbocharger hoses can be economically co-extruded with a patented process and adhesive package, using *Silastic*[®] high-consistency rubber (HCR) and fluorosilicone rubber (FSR) elastomers. Adhesion compatibility is optimized.



Fuel-system quick-connect seals rely on proven *Silastic*[®] brand fluorosilicone rubber (FSR) and fluoro liquid silicone rubber (F-LSR) elastomers for excellent fuel resistance and strong mechanical properties. *Dow Corning*[®] brand silicone and fluorosilicone adhesive/sealants are used for many other powertrain sealing and gasketing needs.

ASK AN EXPERT

Identify your powertrain application needs. Get Dow Corning help.

- Radiator/intercooler seals
- CVJ boots
- Engine seals, gaskets
- Engine mounts
- Muffler hangers, dampers
- Turbocharger/intercooler hoses
- Coolant/radiator hoses
- Powertrain component lubrication
- Dry-film corrosion protection
- Fuel quick-connect seals
- Flexible diaphragms
- Piston anti-friction coatings
- Vibration and wear control
- Other powertrain solutions



MATERIALS EXPERTISE



SILASTIC®
ENGINEERED
ELASTOMERS

Proven solutions for:

- **Comfort** with engine mounts and exhaust dampers that reduce NVH
- **Efficiency** with rugged seals, gaskets and hoses that eliminate fluid and air leaks
- **Safety** with durable CVJ boots that seal driveline joints without need for heat shields
- **Reliability** with fuel quick-connect seals and flexible diaphragms that resist failure



DOW CORNING®
ADHESIVE/SEALANTS

Proven solutions for:

- **Comfort** with component bonding that prevents squeaks, rattles and buzzing vibrations
- **Efficiency** with cure-in-place seals and component mounts that speed production assembly
- **Safety** with durable seals and gaskets that prevent leaks and premature system failures
- **Reliability** with heat- and fuel-resistant seals that provide extended component service life

DOW CORNING



MOLYKOTE®
FROM DOW CORNING

Develop application solutions that meet your needs exactly

Meet system design, production and service requirements.

Dow Corning is ready to help you with materials innovation, application expertise, and global service and support. Get the job done right with:

- **Silastic® engineered elastomers** for heat- and fuel-resistant sealing, hoses and gasketing and other durable, long-lasting functional components.
- **Dow Corning® elastomers and sealants** for fabric coating and seam sealing on inflatable-restraint systems, including airbags, side curtains and belts.
- **Dow Corning® adhesives and sealants** for high-strength component assembly bonding and reliable seals and gaskets.
- **Dow Corning® GT precured silicone gel grommets and strips** for easy-to-use, self-healing connector sealing solutions.
- **Molykote® and Dow Corning® specialty lubricants** for controlling NVH, preventing squeaks and rattles, reducing friction and wear, and extending service life.



GET THE RESULTS YOU NEED



Silastic[®] engineered elastomers are available as standard and customized HCR compounds, FSR compounds, LSR elastomers and F-LSR elastomers.



Dow Corning[®] inflatable-restraint technologies include flat fabric and one-piece woven (OPW) coatings, seam sealants for added rollover protection, and low-friction top coatings. Innovation continues on heat-shielding applications and materials customized to lower-cost fabrics.



Dow Corning[®] silicone and fluorosilicone adhesive/sealants are available as one-part moisture-cure, two-part room-temperature-condensation-cure and heat-curing materials. They can improve productivity in FIPG and CIPG applications.



Dow Corning[®] GT precured gel grommets (sealant pads) are excellent for sealing individual pins in multi-way connectors, and the sealant strips provide corrosion protection and low-pressure gaskets on sensors and connector housings.



Molykote[®] brand *Smart Lubrication*[™] solutions include greases fortified with solid lubricants, lighter-load silicone compounds, solid-lubricant pastes for run-in and heavy loads, lubricating solids for brake pad friction control, and paintlike anti-friction coatings ideal for dry-film lubrication.



MOLYKOTE[®]
SPECIALTY
LUBRICANTS

Proven solutions for:

- **Comfort** with greases and pastes that aid run-in and dampen vibration and noise
- **Efficiency** with anti-friction coatings (AFCs) that improve fuel economy and reduce wear
- **Safety** with solid-film lubrication that provides long-lasting wear and corrosion protection
- **Reliability** with application-matched formulations that extend component service life



MORE SOLUTIONS

Explore other *Dow Corning*[®] technologies for automotive applications

Discover more materials innovation. Dow Corning has even more options to help you get the job done right.

One Company: Many Transportation Solutions means we go beyond our leading brands of engineered elastomers, adhesive/sealants and specialty lubricants. More choices for meeting your needs and challenges include:

- **Appearance chemicals** and formulating guidelines for wash and rinse aids, waxes, conditioners, protectants, and other auto-care products
- **Electronic materials** for device protection, adhering, sealing, dielectric isolation, EMI shielding, light management and thermal management
- **Functional fluids** for damping, viscous coupling and processing
- **Moldmaking materials** for tooling and rapid prototyping
- **Release agents** for rubber, plastic and metal processing
- **Silicon-based materials** for semiconductor and photovoltaic devices
- **Surfactants and additives** for polyurethane foam production
- **Thermoplastics and composites** for lightweight, high-strength panels, trims and fascia



Dow Corning[®] electronic materials



Dow Corning[®] plastic and composite additives



Dow Corning[®] automotive appearance chemicals



LET'S TALK.

Collaborate for results that work. With more than 65 years of success innovating for the world's mobility industry, Dow Corning can help you develop the right solutions. Add us to your automotive problem-solving team. Challenge us with special performance needs and application requirements. And rely on our innovation, expertise, technical service and global support to make your job easier.

Your Global Connection

Dow Corning customer service and engineering centers are strategically located worldwide. Our team of application and materials experts can provide local support in all automotive manufacturing regions. To request information about *Silastic* engineered elastomers, *Dow Corning* adhesive/sealants and *Molykote* specialty lubricants, visit dowcorning.com/ContactUs.

Dow Corning Brands Serve You

In addition to the *Dow Corning*® brand, *Molykote*® brand and *Silastic*® brand specialty materials and services showcased in this brochure, Dow Corning Corporation offers thousands of standard silicone products under its XIAMETER® brand, backed by the same quality and supply you've come to expect from Dow Corning. Visit www.xiameter.com to learn more about additional silicone options available from the XIAMETER brand.

Learn More

Get details about Dow Corning's innovation, expertise and support to help you develop high-performance solutions for your challenging automotive system applications. Please visit dowcorning.com/auto or email automotive@dowcorning.com.

Watch our video:



Images: Cover: AV16799; Page 2: AV18520; Page 4: AV16814, AV13672, AV15060, AV15061; Page 5: AV13673, AV13675; Page 6: AV13731, AV13733, AV16811; Page 7: AV11685, AV10074; Page 8: AV13770, AV13771; Page 9: AV04687, AV13772; Page 11: AV11271, AV16802, AV16808, AV16805, AV07388, AV15017, AV15016, AV15181; Page 12: AV18392; Page 13: AV03384, AV12468, AV01065, AV10933, AV04092, AV07219, AV10013; Page 14: AV16803, AV14431, AV13876, AV03173, AV13877; Pocket: AV15358

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