

Automotive and Transportation



## ENHANCE PERFORMANCE, RIDE AND HANDLING

Smart science drives chassis and brake innovation



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## MEET CHASSIS AND BRAKE NEEDS WITH SMART SCIENCE SOLUTIONS

Key design trends for steering, suspension and braking on driven and increasingly autonomous vehicles focus on enhanced performance, ride and handling. Safety, fuel efficiency, occupant comfort and reduced service are critical goals.

Dow Corning has proven, effective solutions for meeting your chassis and brake design needs. Our smart science can help:

- > Improve braking performance with less noise, drag and rolling resistance
- Maintain steering response, precision and quiet smoothness for safer operation
- Reduce suspension noise, vibrations and harshness (NVH) to increase comfort
- Strengthen component assembly bonding, sealing and gasketing
- Optimize friction and wear control to extend component service life



Component dust covers, seals and boots Column —/ bearing and shaft lubrication

Assembly fastener coatings Steering gear, linkage and tie rod lubrication

Shock absorber sealing Electric power steering (EPS) lubrication Parkingbrake cable and gear compounds

Booster/ actuator sealing and lubricating

# RIVES KE INNOVATION

Pad clip, – shim and backing plate greases Control module housing seals and gaskets Pad and lining frictioncontrol additives Caliper pin and spring lubrication

Pedal system lubrication Control cable lubrication; vibration/noise damping  Ball joint, bushing and bearing lubrication

Drum brake component lubrication

# PROVEN, EFFECTIVE SOLUTIONS

Dow Corning – a global leader in silicones, silicon-based innovation and complementary chemistries – can help you achieve vehicle chassis and brake design goals with our *Smart Science* solutions:

## MOLYKOTE® BRAND SPECIALTY LUBRICANTS

- Anti-friction coatings, anti-seize pastes, greases, oils and dispersions, silicone compounds, and Lubolid friction-control additives
- Enhanced tactile quality with excellent lubricity; reduced, controlled or tailored friction; reduced wear and noise

### SILASTIC<sup>®</sup> BRAND ENGINEERED ELASTOMERS

- Silicone (HCR and LSR) and fluorosilicone (FSR and F-LSR) elastomers can provide protective seals and gaskets for steering, suspension and brake components
- Durable sealing flexibility without aging, cracking or softening in extreme heat and cold

## DOW CORNING® BRAND ADHESIVES AND SEALANTS

Room-temperature-curing, heat cure and hot-melt adhesives and sealants secure system seals and bonds with advanced productivity

## THERMOPLASTIC ELASTOMERS (TPEs) FROM MULTIBASE

- Advanced technical polymers balance cost, performance, visual and tactile appeal with processing ease and recyclability
- Less stick-slip, low odor, less fogging, high mechanical strength, reduced energy use



## SOLUTIONS FOR A FULL RANGE OF VEHICLE SYSTEMS

In addition to the offerings for vehicle chassis and brakes showcased in this brochure, Dow Corning also provides proven, effective solutions for the following systems:

- > Interior
- > Exterior
- > Electrical
- > Powertrain
- > Safety

## MORE DOW CORNING SMART SCIENCE

### **ELECTRONICS SOLUTIONS**

- Silicone innovations for increased connectivity, safety, energy efficiency and added comfort
- Thermal management materials, adhesives, potting materials and conformal coatings

#### LED LIGHTING SOLUTIONS

- Advanced technologies for high-brightness LED interior and exterior lighting
- Adhesives and sealants, conformal coatings, pottants, thermal interface and optical materials

### **APPEARANCE AND CLEANING SOLUTIONS**

- Silicones for exterior wash and rinse aids, waxes, conditioners, vinyl protectants, and tire care
- Performance-enhancing silicone ingredients for interior leather, upholstery, trim and glass care





## LEARN MORE: CONTACT US

Learn more about meeting today's trend-driven design needs with proven, effective solutions. See how *Smart Science Drives Chassis and Brake Innovation*. Contact your Dow Corning Technical Representative, visit dowcorning.com/auto or send an email via dowcorning.com/ContactUs.

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