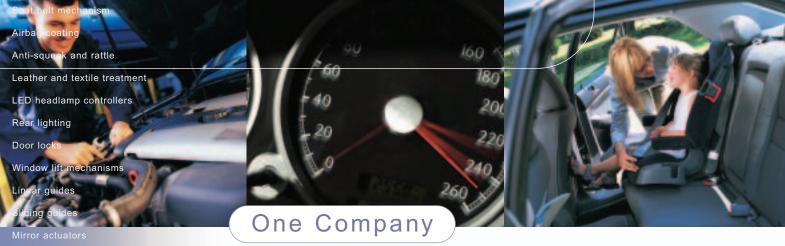
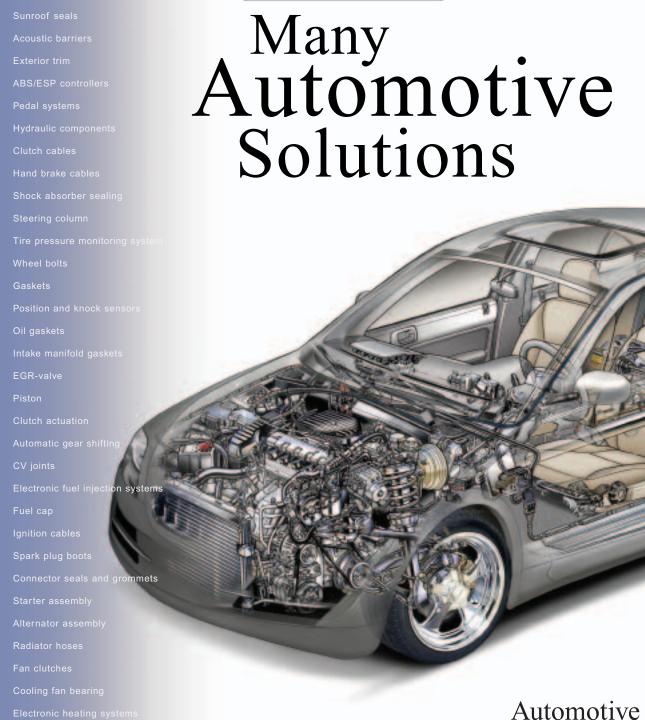
Head up displays

Rollover sensors





Flap seals and air ducts

Compresso





## One Company

## Many Automotive Solutions

Dow Corning helps lower costs and boost performance of your automotive systems, modules and components.

More than 60 years as a leading automotive supplier gives us a strong foundation of expertise and know-how to meet your unique requirements. We have a long track record of exceeding customer expectations for consistently high quality products and services in just about every aspect of automotive manufacturing. That is the Dow Corning difference.

Around the world, we help companies solve their most demanding business problems. Whether your company is an established leader or a fast-growing start-up, we offer a wide range of products and related services that will keep your business moving forward.

Innovative technology is designed into every one of our products—from our Molykote® brand of automotive lubricants, greases and anti-friction coatings to our Dow Corning® brand of sealants and gaskets. Every product is backed by our commitment to provide design and processing answers when you need them. Our functionality testing, application engineering, and equipment/material integration provide you with a total systems solution.

Learn how we can tailor our products and services for your business.



## Total Automotive System Solutions

Dow Corning offers exactly what you need: Choice. You will find that our Molykote® and Dow Corning® solutions meet just about every automotive manufacturing requirement. We can provide you with the products and services to enhance the value of your system or components.

## Lubrication

## Molykote<sup>®</sup> Lubricants. Dow Corning<sup>®</sup> Solutions.

Simply put, the right lubricant for a moving part can mean the difference between high performance and failure. When you select Dow Corning as your preferred lubricant supplier, you get access to our extensive offering of Molykote brand lubricants, specialty greases, pastes, anti-friction coatings, oils and dispersions, as well as unmatched application expertise.

Molykote lubricants can be used in situtations requiring high pressure or in extreme temperatures, where you have vibration and shock loads, or between sliding surfaces operating under heavy loading. Our anti-friction coatings are designed for many uses, including body and interior applications, which will help you reduce or eliminate problems associated with squeaks and rattles.

Molykote lubricants are designed to perform optimally on a variety of substrates, including metals, elastomers and engineered polymers.

Regardless of the scope and scale of lubrication support you require, we can provide the exact combination of products and/or services that you need to succeed.



## Smart Lubrication™ Increases Customer Satisfaction

Molykote® can help you optimize performance and extend the life of component parts and vehicle systems. Combine that with a reduction of squeaks, rattles, noise, vibration and harshness and you get an increase in customer satisfaction.

Following three simple steps can increase customer satisfaction; lead to successful lubrication and long-term component performance.

#### 1. Start Early.

Selecting the right lubricant early in the process can improve product start up and reduce costs by minimizing design changes. Also, proper lubricant selection can prevent component failures and eliminate costly warranty callbacks.

## 2. Involve Outside Experts to Prevent Problems.

Effective lubricant selection demands support from experts who know the right lubricants to use. This expertise can help prevent problems during the OEM design stage or with long term component and vehicle system failures.

#### Identify a Global Supplier that Delivers Locally.

You can add value by working with Dow Corning. We can provide the same quality from a design concept to the production of parts worldwide. We offer a complete line of automotive lubricants, application expertise and functional testing to assist you.



## Sealing Methods

## Sealants and Gasketing

Durable Dow Corning silicone-based sealants provide exceptional sealing and gasketing performance in demanding environments, including extreme temperatures.

Typical features of Dow Corning<sup>®</sup> automotive silicone sealants include:

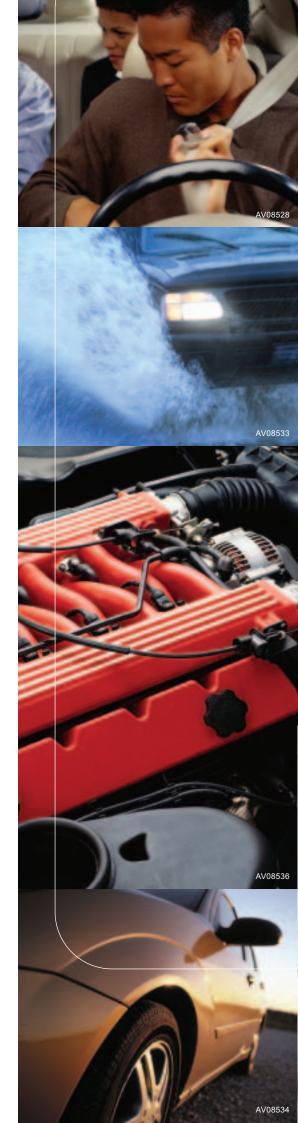
- · Fuel and oil resistance
- Chemical stability in automotive fluids
- UV, ozone and weather resistance
- · Superior adhesive strength
- Stability over a wide temperature range
- Excellent dielectric properties

Dow Corning sealants are formulated using a variety of product technologies, each providing strengths and characteristics unique to its chemistry. Dow Corning sealants can be used for many automotive application such as in-placegasketing for valve covers, transmission covers, and differential covers, as well as adhesive applications such as head lights, mirrors and emblems.

When sealing integrity and component endurance are important, our Dow Corning® Cured-in-Place and Dispensed Foam Gasketing materials can dramatically lower the cost of applying a seal and offer higher value to those providing OEM and/or Tier1 integrators with sealed modular assemblies.

As the leader in silicone technology, Dow Corning has developed the cure technology to meet your application needs that require conventional cure (acetoxy), low odor (oxime), neutral cure (alcoxy), coatings and surface preparation products.

Let us know which product features are most important to your application. We can tailor our products and services according to your specific requirements.



## **Applications**

# Body and Interior Components

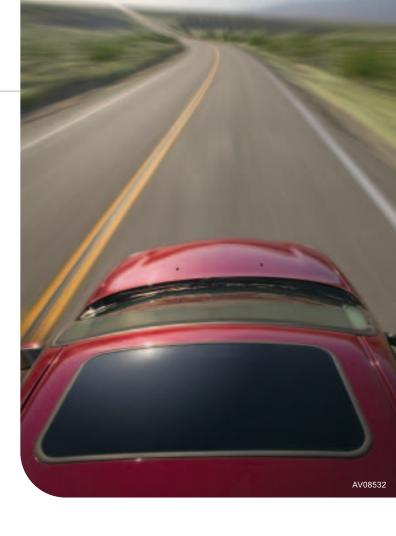
Body component applications are critical to automotive comfort and reliability. Whether you are a systems integrator, modular component assembler, or individual component manufacturer, Dow Corning has a full range of Molykote® anti-friction coatings and lubricants and Dow Corning® adhesives and sealants to meet your cost and performance requirements.

Dow Corning products are used in a variety of body component applications, including:

- · Door and lock systems
- Sun roof
- · Mirrors
- · Weather seals
- · Wiper systems
- Glazing
- Lighting

Interior component applications include:

- · Restraint systems
- Multimedia systems
- Seating systems
- · Instrument panel systems
- Interior trim
- Accessories (mirror mounts, sun visor, lighting)

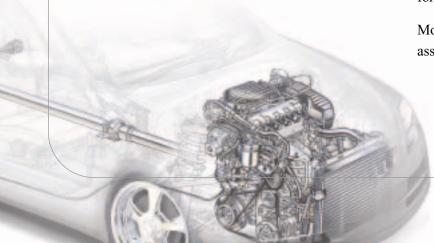


# Powertrain Components and Systems

Dow Corning is a leader in powertrain sealing and lubrication and is committed to providing you with cuttingedge solutions to meet your every-day needs. We are also dedicated to developing products for the next generation powertrain technologies such as fuel cells.

Our Molykote anti-friction coatings and lubricants reduce friction and help to increase the performance and part life of engine gaskets, pistons, air conditioning components, bearings and gears. Our torque transfer and viscous coupling fluids are known industry-wide for their performance in very demanding applications.

Molykote specialty lubricants even include lubricant assembly aids at the OEM/Tier 1 plant level.



## **Applications**

# Chassis and Brake Systems

For decades, Dow Corning products have met stringent safety and performance requirements for applications in chassis and brake systems. We are a global leader in lubrication technology with a network of experts available to solve your application issues.

Our Molykote® materials improve the durability of your chassis and drivetrain systems. You can increase the long-term performance of your brake systems by using Molykote lubricant and friction control additives. For a wide range of brake applications, use Molykote pastes, anti-friction-coatings, low-friction silicone compounds and Dow Corning® automotive sealants.

## **Electrical Applications**

Dow Corning automotive materials extend the performance life of small electrical motors and devices and boost the integrity of other electrical devices throughout the vehicle.

Our Molykote specialty lubricants are designed to meet a wide variety of electrical applications for reliable operation of your automotive switches, bearings and wiring harnesses.

For automotive lighting, our Dow Corning specialty sealants will meet your requirements for high-temperature sealing and non-fogging.

## Cooling and Climate Control

Dow Corning materials are used in a wide variety of cooling and climate control applications that include the following:

#### **Engine Cooling**

- Radiators
- · Water pumps
- Thermostat housing
- · Charged air coolers
- · Fan clutches
- Hose assemblies
- · Cooling fans

#### Climate Control

- HVAC flapper doors and modules
- Ducts
- Firewall portals and seals
- · Cabin filtrations
- · AC compressor pistons and clutches
- O-ring assemblies
- Actuators



### Services

# Specify and Provide the Best Solution the First Time

Our application engineering provides you a tailored solution. Our process integration assures this is a broad-based solution, not just for a material. Our technical service experts are available to be involved from start-up through production. Leverage these services and our other unique capabilities to gain efficiency improvements. Dow Corning is proud to be your one source supplier by offering:

- One of the most complete line of automotive technologies available from any single supplier (solid, liquid and anti-friction coating lubricants, as well as sealing and gasketing materials)
- Functional testing capabilities, engineering, and prototyping consultations that helps identify problems in the design stage as a means of reducing time to market and engineering design change costs
- Custom prototyping and testing services to help you visualize new product concepts, customize products and services and test them in end-use environments
- One of the most comprehensive ranges of products and services available from a single supplier
- An Equipment Manufacturing Alliance network to provide access to a total system solution from an individual delivery work cell to a completely installed assembly line
- Highly skilled application engineers and technical staff who can relate to car OEMs and
   Tier I and II suppliers on an engineering basis



# Technical Specifications

As part of Dow Corning's ongoing commitment to the automotive industry, we continuously strive to meet and comply with all relevant technical specifications and quality improvement systems.

We are aligned with the automotive quality system standards by transitioning our existing QS-9000 certifications to the certification of ISO/TS16949:2002.

We will continue to ensure that our operations remain at the highest level of efficiency and productivity in supplying top quality products and services to our customers.

# Dow Corning Automotive: A Total Solutions Offering

Over the past 60 years, Dow Corning has worked to meet and exceed customer needs for consistently high quality products and services for automotive applications. Our capabilities go far beyond lubrication and sealing products and services described in this brochure. The expertise of the various Dow Corning divisions that work for the automotive industry ranges from airbag coatings and electronic insulation materials to ignition wiring and leather coatings.

The illustration below shows you numerous examples of our expertise and gives you an idea of the extensive reach of Dow Corning's offerings for automotive applications.

To learn more about our total solutions approach, visit us at www.dowcorning.com or www.molykote.com.

## Cooling and Climate Control

Radiator hoses
Fan clutches
Cooling fan bearing
Electronic heating systems
Flap seals and air ducts
Compressor
Actuators

#### Electrical

Ignition cables
Spark plug boots
Connector seals and grommets
Starter assembly
Alternator assembly

#### Powertrain

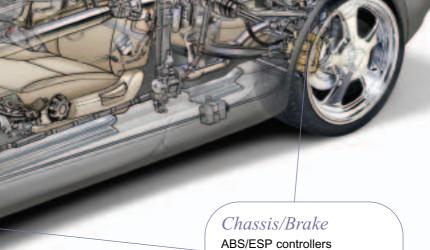
Position and knock sensors
Oil gaskets
Intake manifold gaskets
EGR-valve
Piston
Clutch actuation
Automatic gear shifting
CV joints
Electronic fuel injection systems
Fuel cap

#### Interior

Speaker seals
Headrest slides
Head up displays
Rollover sensors
Seat belt mechanism
Airbag coating
Anti-squeak and rattle
Leather and textile treatment

#### *Body*

LED headlamp controllers
Rear lighting
Door locks
Window lift mechanisms
Linear guides
Sliding guides
Mirror actuators
Sunroof seals
Acoustic barriers
Exterior trim



Pedal systems Hydraulic components

Clutch cables Hand brake cables Shock absorber sealing Steering column

Wheel bolts Gaskets

Tire pressure monitoring system

#### **How To Contact Us**

Dow Corning has sales offices, manufacturing sites, as well as science and technology laboratories around the globe. For more information, visit www.dowcorning.com or www.molykote.com, or call one of our primary locations listed here.

#### **Your Global Connection**

#### The Americas

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Automotive Development Center N. America

Telephone: + 1 734 454 2000

Brazil

Dow Corning do Brasil Ltda. Telephone: + 55 11 3759 4300

#### Asia

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FAX: + 91 22 5694 6848

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Dow Corning France S.A.

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Dow Corning S.p.A.

Sales Office

Telephone: + 39 0298 8321

Spain

Dow Corning Iberica

Sales Office

Telephone: + 34 93 363 6900

United Kingdom

Customer Service Center Northern Europe

Sales Office

Telephone: + 44 1676 528 000

## Global Presence. Local Support.

Dow Corning's global presence in the automotive market enables you to develop specifications centrally while providing consistent high-quality products and services locally. Through our global sales, application engineering, product development, and manufacturing and delivery capabilities, our quality is consistent around the globe. This also enables a more effective and efficient product customization process—no matter where you are located!

#### LIMITED WARRANTY INFORMATION - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended use. Suggestions of uses should not be taken as inducements to infringe any particular patent.

Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment.

Your exclusive remedy for breech of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Molykote is a registered trademark of Dow Corning Corporation.

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We help you invent the future.<sup> $\mathsf{M}$ </sup>



www.dowcorning.com