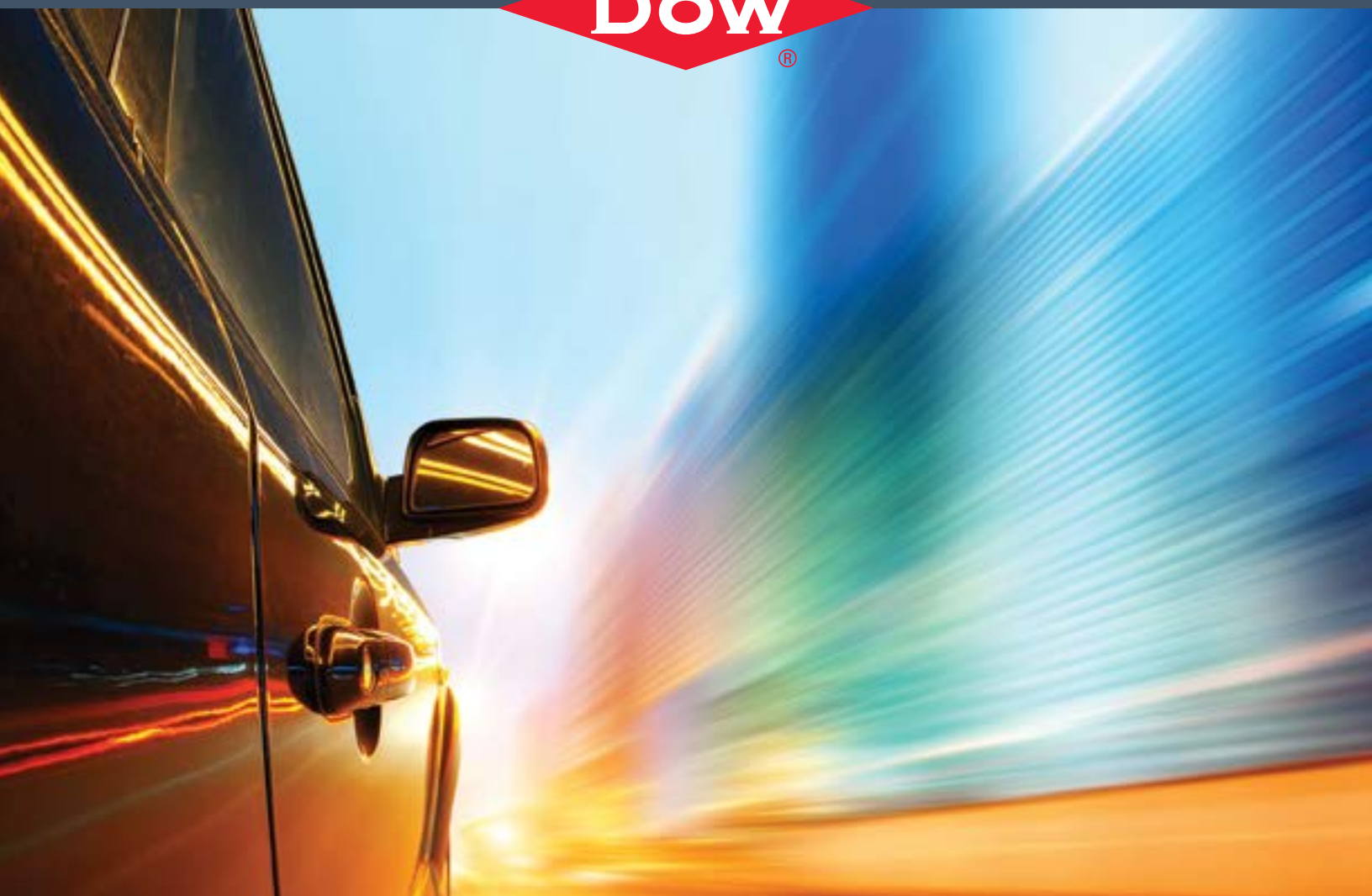


Engineered elastomer solutions for vehicle systems design

Smart science drives component
durability innovation



Design for process efficiency and performance durability

Meet trend-driven design needs for energy efficiency, greater comfort, safety and sustainability with engineered elastomers from Dow. Our selection of advanced silicone and fluorosilicone rubber elastomers can help you achieve:

- **Energy efficiency** by enabling lightweight design with proven mechanical and environmental resistance
- **Driving comfort** by reducing squeaks; rattles; and noise, vibrations and harshness (NVH)
- **Safety** by improving component durability and safety system reliability
- **Sustainability** with efficient processing and increased service life of components

Choose from a wide range of high-performance engineered elastomers to meet your requirements for efficient processing and durable performance:

- High-consistency silicone rubber (HCR)
- Liquid silicone rubber (LSR)
- Fluorosilicone rubber (FSR)
- Fluoro liquid silicone rubber (F-LSR)

Key performance advantages of these engineered elastomer technologies from Dow include:

- Excellent resistance to fuel, oil and solvents
- Wide service-temperature range from -40 to 316°C (-40 to 600°F)
- Stable electrical insulating properties when exposed to severe-duty service requirements
- Excellent mechanical strength and flexibility with durable resistance to aging, cracking, softening and compression set
- Application-matched choices in hardness, specific gravity, tensile strength, elongation, color and flow properties
- Process-matched compounds and standard



Innovate with smart science

Proven, effective engineered elastomer solutions from Dow can help you meet vehicle system design goals for innovation in process efficiency and performance durability:

Powertrain

- 1 Anti-drainback oil filter valve
- 2 Cylinder head
- 3 Oil pan
- 4 Air intake manifold
- 5 Fuel delivery diaphragms
- 6 EGR valve diaphragms
- 7 Fuel quick-connect seals
- 8 Turbocharger, intercooler hoses
- 9 Radiator seals
- 10 Engine coolant hoses
- 11 Heater hoses
- 12 Transmission seals
- 13 Driveline CVJ boots
- 14 Engine mounts, exhaust hangers

Chassis and brakes

- 15 Gaskets and seals
- 16 Bellows, dust covers, boots

Electrical

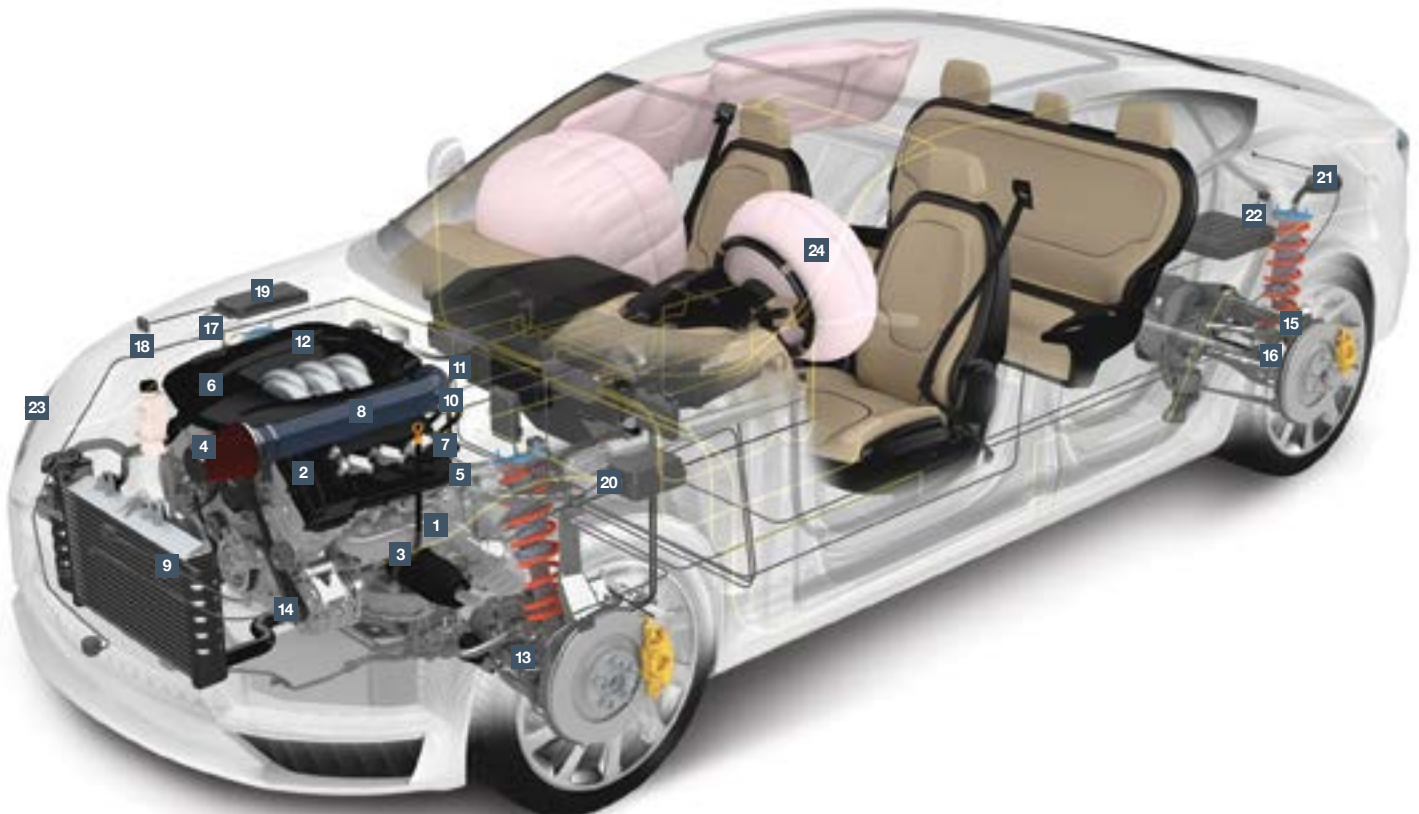
- 17 Wire harness connectors
- 18 Coil-to-plug wire insulation
- 19 Spark plug boots
- 20 Ignition cable insulation
- 21 HEV-EV charging cable insulation
- 22 Battery connector seals

Exterior








- 23 Lighting

Safety

- 24 Airbag fabric coatings









Selection guide: Engineered elastomers

APPLICATION		DESIGN NEEDS	POTENTIAL SOLUTIONS	REGIONAL AVAILABILITY			
Powertrain systems				NA	LA	EMEAI	APAC
	Anti-drainback oil filter valve	<ul style="list-style-type: none"> Stable mechanical properties Resistance to engine oils, including synthetics Resistance to hardening or softening over a wide range of service temperatures 	Liquid silicone rubber (LSR): SILASTIC™ 9390-70 Liquid Silicone Rubber Rubber compounds for fabricated parts: XIAMETER™ 21068-V Silicone Rubber	•	•	•	•
	Oil pan gasket	<ul style="list-style-type: none"> Good resistance to engine oils, including synthetics Resist compression set and retain flexibility across service temperature range 	Rubber compounds for fabricated parts: XIAMETER™ Q4-2918 Silicone Rubber Compound XIAMETER™ Q4-2918LV Silicone Rubber Compound	•			
	Rocker cover gasket	<ul style="list-style-type: none"> Good oil resistance Good compression set resistance and compression stress relaxation 	Rubber compounds for fabricated parts: XIAMETER™ MX 4108 Silicone Rubber XIAMETER™ Q4-2918 Silicone Rubber Compound XIAMETER™ Q4-2918LV Silicone Rubber Compound XIAMETER™ 24048-V Silicone Rubber XIAMETER™ 24057-V HCR Compound XIAMETER™ 24096-V Silicone Rubber XIAMETER™ 24097-V HCR Compound Cured-in-place gasketing (CIPG): SILASTIC™ RBL-9694-30P Liquid Silicone Rubber SILASTIC™ RBL-9694-45M Liquid Silicone Rubber	•	•	•	•
	Air intake manifold gasket	<ul style="list-style-type: none"> Oil resistance Good aging in hot fuel vapors Good resistance to compression set 	Cured-in-place gasketing (CIPG): SILASTIC™ RBL-9694-30P Liquid Silicone Rubber SILASTIC™ RBL-9694-45M Liquid Silicone Rubber	•	•	•	•
	Fuel delivery diaphragms	<ul style="list-style-type: none"> Long-term fuel resistance Good flexibility over a wide range of service temperatures 	Fluoro-liquid silicone rubber (F-LSR): SILASTIC™ FL 30-9201 Fluoro Liquid Silicone Rubber SILASTIC™ FL 40-9201 Fluoro Liquid Silicone Rubber SILASTIC™ FL 60-9201 Fluoro Liquid Silicone Rubber Fluorosilicone rubber compounds (FSR): SILASTIC™ EFX20MHS00 Fluorosilicone Compound SILASTIC™ EFX30MHS00 Fluorosilicone Compound SILASTIC™ EFX60MLC00 Silicone Rubber SILASTIC™ FCM 55-1241-FX Fluorosilicone Compound SILASTIC™ FCM 60-1278-FX FSR Rubber SILASTIC™ 28075HD-V Fluorosilicone Rubber SILASTIC™ 28819-V Fluorosilicone Compound SILASTIC™ 38640-V Fluorosilicone Rubber	•	•	•	•
	Exhaust gas recirculation (EGR) valve diaphragms	<ul style="list-style-type: none"> Good fuel resistance Durable flexibility in high service temperatures (200°C) 	Fluoro-liquid silicone rubber (F-LSR): SILASTIC™ FL 30-9201 Fluoro Liquid Silicone Rubber SILASTIC™ FL 40-9201 Fluoro Liquid Silicone Rubber SILASTIC™ FL 60-9201 Fluoro Liquid Silicone Rubber Fluorosilicone rubber compounds (FSR): SILASTIC™ EFX70MLC00 Silicone Rubber SILASTIC™ 28075HD-V Fluorosilicone Rubber	•	•	•	•
	Fuel delivery quick-connector seals	<ul style="list-style-type: none"> Fuel resistance Good flexible in heat/cold Good permeation resistance Good compression set resistance and stress relaxation properties Low swell High tear strength 	Fluorosilicone rubber compounds (FSR): SILASTIC™ EFX70MLC00 Silicone Rubber SILASTIC™ EFX75MLC10 Fluorosilicone Rubber SILASTIC™ FCM 75-4955 LC Silicone Rubber SILASTIC™ 28075HD-V Fluorosilicone Rubber	•	•	•	•



APPLICATION		DESIGN NEEDS	POTENTIAL SOLUTIONS	REGIONAL AVAILABILITY			
Powertrain systems (continued)				NA	LA	EMEAI	APAC
	Turbocharger, intercooler hoses	<ul style="list-style-type: none"> Withstand a wide range of service temperatures Good resistance to fuel, oil and exhaust gases Good interlayer adhesion without cracking or peeling High mechanical strength 	Silicone rubber compounds for outer layers:				
			SILASTIC™ HCC 55-1002-NP Silicone Rubber	•	•	•	•
			SILASTIC™ HCC 65-1027-NP HCR Compound	•			
			SILASTIC™ HCC 70-1012-GP Silicone Rubber	•		•	
			SILASTIC™ HCC 70-1031-NP HCR Compound	•			
			Self-adhesive rubber compounds: <i>Intermediate layer:</i>				
			SILASTIC™ HCE 70-4770 SA Silicone Rubber	•	•	•	•
			Fluorosilicone rubber compound for hose liners:				
			SILASTIC™ FCC 55-1047-FX Fluorosilicone Rubber	•	•	•	•
			SILASTIC™ FCE 50-4948 SA Silicone Rubber	•	•	•	•
	Radiator seals	<ul style="list-style-type: none"> Seal in coolant Maintain sealing performance from -50 to 200°C and at pressures up to 20 psi Provide compression gasket for engineered groove 	Cured-in-place gasketing (CIPG):				
			SILASTIC™ RBL-9694-30P Liquid Silicone Rubber	•	•	•	•
			XIAMETER™ RBL-2004-70 Liquid Silicone Rubber	•		•	•
	Water coolant hoses and radiator hoses	<ul style="list-style-type: none"> Good chemical/solvent resistance Durable high-temperature performance Easy processing for calendaring or extrusion 	Silicone rubber bases:				
			XIAMETER™ RBB-2100-60 Base	•	•	•	•
			Rubber compounds for fabricated parts:				
			SILASTIC™ HCE 65-1029-NP Silicone Rubber	•			
			SILASTIC™ HCR 65-1030-NP Silicone Rubber	•			
			SILASTIC™ HCE 70-1026-NP Silicone Rubber	•			
			SILASTIC™ 20031-D BLU Silicone Rubber Blue	•			
			SILASTIC™ 20032-D RED Silicone Rubber Red	•			
			SILASTIC™ 20039-D GRN Silicone Rubber Green	•			
			SILASTIC™ 20063-L BLK Silicone Rubber Black	•			
SILASTIC™ 20093-T Red Silicone Rubber Red	•						
	Low-pressure heater hoses	<ul style="list-style-type: none"> Good chemical/solvent resistance Durable high-temperature performance Easy processing for calendaring or extrusion 	Rubber compounds for fabricated parts:				
			SILASTIC™ 27788-Z Silicone Rubber	•	•	•	•
			SILASTIC™ 27790-Z Silicone Rubber	•			
	CVJ boots	<ul style="list-style-type: none"> High flex-fatigue life Durable flexibility over a wide temperature range Good resistance to lubricants and road contaminants 	Rubber compounds for fabricated parts:				
			SILASTIC™ HCM-1102 Silicone Rubber	•			
			XIAMETER™ EHP60MHS01 Silicone Rubber	•		•	
	Engine mounts, exhaust hangers	<ul style="list-style-type: none"> High tear strength Stable mechanical properties Long-term resistance to extreme heat and cold 	Rubber compounds for fabricated parts:				
			XIAMETER™ HCM 75-4731 LC Silicone Rubber	•	•	•	•
			XIAMETER™ 21058-V Silicone Rubber	•			
			XIAMETER™ 24104-V Silicone Rubber	•			
			XIAMETER™ 24140-V Silicone Rubber	•			
			XIAMETER™ 24142-V Silicone Rubber	•			

NOTE: These silicone and fluorosilicone engineered elastomers are proven, effective solutions for vehicle systems design innovation. Contact your Dow representative for product options to meet specialized requirements.

Selection guide: Engineered elastomers

APPLICATION		DESIGN NEEDS	POTENTIAL SOLUTIONS	REGIONAL AVAILABILITY			
				NA	LA	EMEAI	APAC
Chassis and brake systems				NA	LA	EMEAI	APAC
	Bellows, dust covers, boots, gaskets, seals	<ul style="list-style-type: none"> • Good mechanical properties • Tear strength • Weatherability 	Rubber compounds for fabricated parts: SILASTIC™ HCM 1102 Silicone Rubber XIAMETER™ EHP60MHS01 Silicone Rubber	•		•	
Electrical systems				NA	LA	EMEAI	APAC
	Wire harness connector seal HEV/EV battery connector seals	<ul style="list-style-type: none"> • Watertight protection • Heat and fluid resistance • Easy assembly with self-lubricating properties • High mechanical strength • Easy processing • Watertight protection • Heat and fluid resistance • Easy assembly with self-lubricating properties • High mechanical strength • Easy processing 	Rubber compounds for fabricated parts: SILASTIC™ WS 190-60-01 Silicone Rubber XIAMETER™ 20003-V Silicone Rubber XIAMETER™ 20018-V Silicone Rubber XIAMETER™ 22013-V Silicone Rubber XIAMETER™ 23010-V Silicone Rubber XIAMETER™ 23023-V Silicone Rubber XIAMETER™ 23077-V Silicone Rubber XIAMETER™ 23084-V Silicone Rubber XIAMETER™ HCM 18-1265 Silicone Rubber XIAMETER™ HCM 18-1303 Silicone Rubber Liquid silicone rubber (LSR): SILASTIC™ 9201-50 Liquid Silicone Rubber SILASTIC™ 9202-30 Liquid Silicone Rubber SILASTIC™ 9202-50 Liquid Silicone Rubber SILASTIC™ 9204-30 Liquid Silicone Rubber SILASTIC™ 9204-50 Liquid Silicone Rubber SILASTIC™ LTC 9402-50 Liquid Silicone Rubber SILASTIC™ LC40-9001 Liquid Silicone Rubber SILASTIC™ LC30-9422 Liquid Silicone Rubber Fluorosilicone rubber compounds (FSR): SILASTIC™ FCM 35-1244 Fluorosilicone Compound SILASTIC™ FCM 40-1174 Fluorosilicone Compound SILASTIC™ FCM 40-1195 Fluorosilicone Compound	•		•	
	Distributorless ignition (DLI) plug wire	<ul style="list-style-type: none"> • Weatherability • Wide range of service temperatures 	Rubber compounds for fabricated parts: XIAMETER™ 29046B-T Silicone Rubber	•			
	Spark plug boots	<ul style="list-style-type: none"> • Electrical insulation for high voltages • High service temperatures 	Rubber compounds for fabricated parts: XIAMETER™ 23004-V Silicone Rubber XIAMETER™ 25065-V Silicone Rubber	•			•
	Ignition cable insulation	<ul style="list-style-type: none"> • Electrical insulation for high voltages • High service temperatures 	Rubber compounds for fabricated parts: XIAMETER™ 23004-V Silicone Rubber	•			•
	Hybrid and electric vehicle charging cable insulation	<ul style="list-style-type: none"> • Reliable electrical insulation • High mechanical strength and flexibility • Low flammability • Weatherability 	Rubber compounds for fabricated parts: SILASTIC™ RBC 7100-60 Compound	•	•	•	•

NOTE: These silicone and fluorosilicone engineered elastomers are proven, effective solutions for vehicle systems design innovation. Contact your Dow representative for product options to meet specialized requirements.

APPLICATION		DESIGN NEEDS	POTENTIAL SOLUTIONS	REGIONAL AVAILABILITY			
Exterior systems				NA	LA	EMEA	APAC
	Lighting - secondary optics	<ul style="list-style-type: none"> • Optically clear • Good mold flow • Excellent feature reproduction • Lighter than glass 	SILASTIC™ MS-1001 Moldable Silicone	•	•	•	•
			SILASTIC™ MS-1002 Moldable Silicone	•	•	•	•
			SILASTIC™ MS-4002 Moldable Silicone	•	•	•	•
Safety systems							
	Airbag coating and sealing	<ul style="list-style-type: none"> • High performance at lower coating weights • High thermal resistivity • Excellent adhesion to PET and PA • Foldability • Flexibility 	Coatings				
			Flat fabric:				
			SILASTIC™ LCF 3600 Coating	•		•	•
			One-piece woven (OPW)				
			SILASTIC™ LCF 3760 Liquid Silicone Rubber	•		•	•
			SILASTIC™ 3715 Curing Agent	•	•	•	•
			Seam sealant				
SILASTIC™ SE 6777 LSR	•	•	•	•			

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Learn more: contact us

To learn more about how our engineered elastomers can help meet challenging design needs in automotive and transportation applications, contact your Dow Technical Representative, visit www.dow.com.



Sustainable design solutions

Enhance your vehicle systems design sustainability with silicone and fluorosilicone engineered elastomers from Dow. These advanced elastomer technologies can be custom-formulated for specified performance characteristics, regulatory standards and specialized process requirements. They are proven, effective solutions that can resist degradation from alternative fuels, synthetic oils and aggressive fluids; withstand increased operating temperatures; help reduce material consumption in lighter-weight vehicles; and aid local production of global vehicle platforms.

More Dow smart science

In addition to the silicone rubber materials including: liquid silicone rubber, fluorosilicone rubber, high consistency rubber, fluoro liquid silicone rubber and cured-in-place gasketing featured in this selection guide, Dow also offers more smart science for vehicle system design innovation with our DOWSIL™ adhesives and sealants.

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