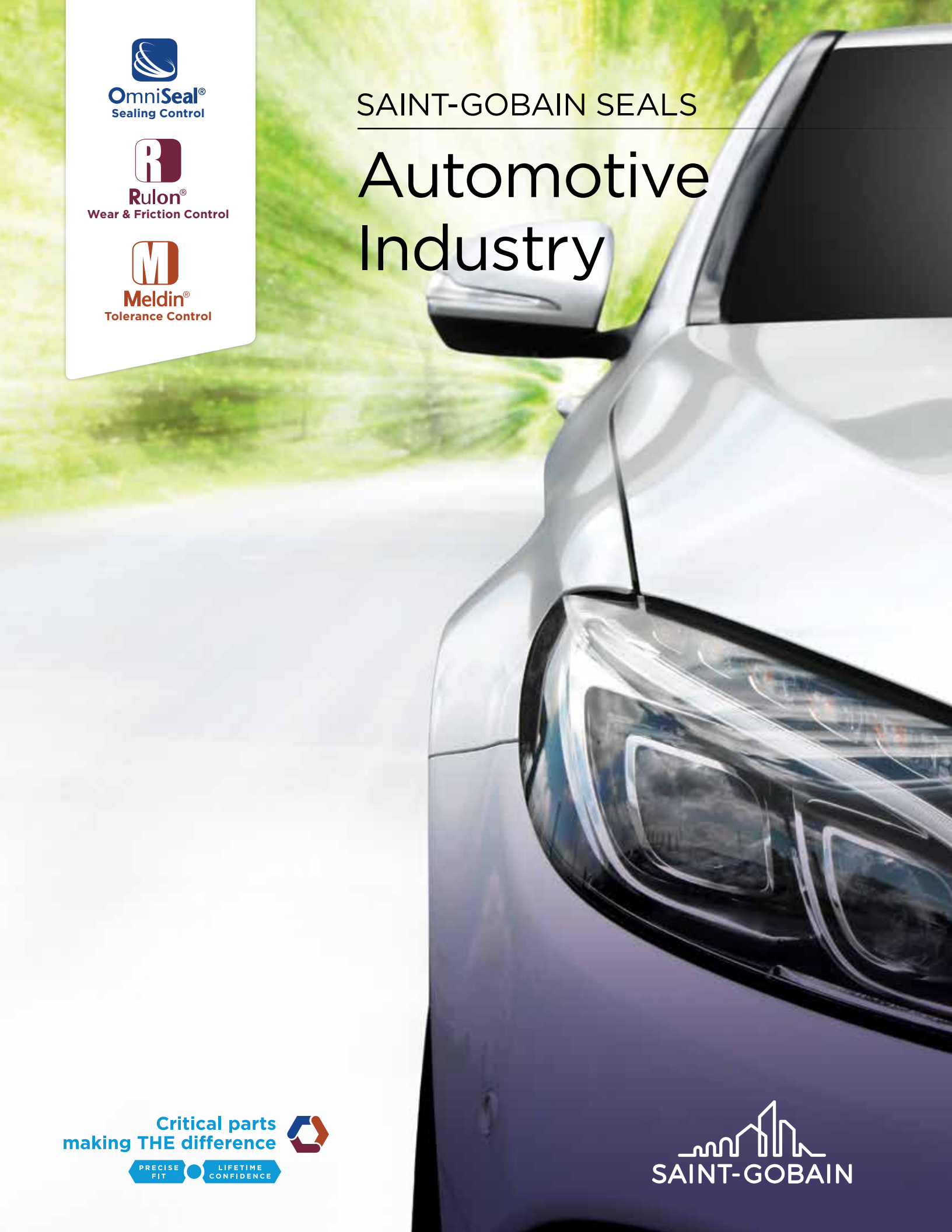
OmniSeal®
Sealing Control

Rulon®
Wear & Friction Control

Meldin®
Tolerance Control

SAINT-GOBAIN SEALS

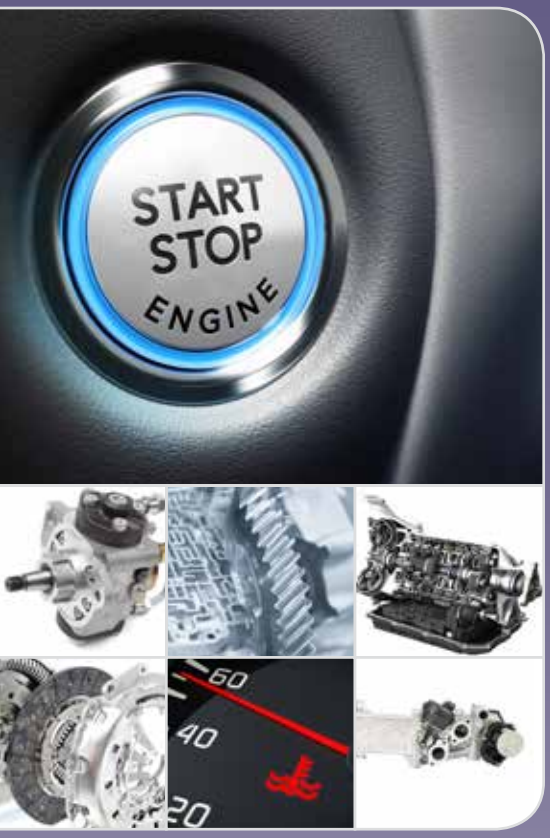
Automotive Industry



Critical parts making THE difference

PRECISE FIT ● LIFETIME CONFIDENCE

SAINT-GOBAIN



Powertrain

Powertrain applications include generating, distributing, transforming and controlling power as well as limiting NVH. Saint-Gobain Seals are co-developers in a wide variety of applications in engine systems, drivetrain and exhaust management, which are critical to increasing fuel efficiency and reducing CO_2 emissions through our OmniSeal®, Rulon® and Meldin® solutions.

Within Powertrain, we provide solutions for Engine Systems, Drive Train, Emission Control, Air Management and Thermal Management.

Products

Meldin® Seal Rings
Meldin®Thrust Washers
Precision Parts
OmniSeal® Lip Seals and Rulon® Cup Seals

Features	Benefits
• Reduced friction • Predictable, low and constant leakage • Reduced drag losses • Rapid seal activation • Reduced noise • Drop-in replacement (i.e., metal)	• Increased system efficiency • Improved performance • Reduced part complexity • Simplifies assembly • Customized design – reduced time to market • Contributes to reduce CO_2 • Reduced TCO

Active Safety

Active safety systems play an increasingly important role to minimize and avoid collisions and accidents. Saint-Gobain Seals supplies high precision parts in brake assist and actuation systems, which are critical components within these active safety systems. With current global trends moving toward electrification and autonomous driving, advanced technology in brake systems are increasingly important.

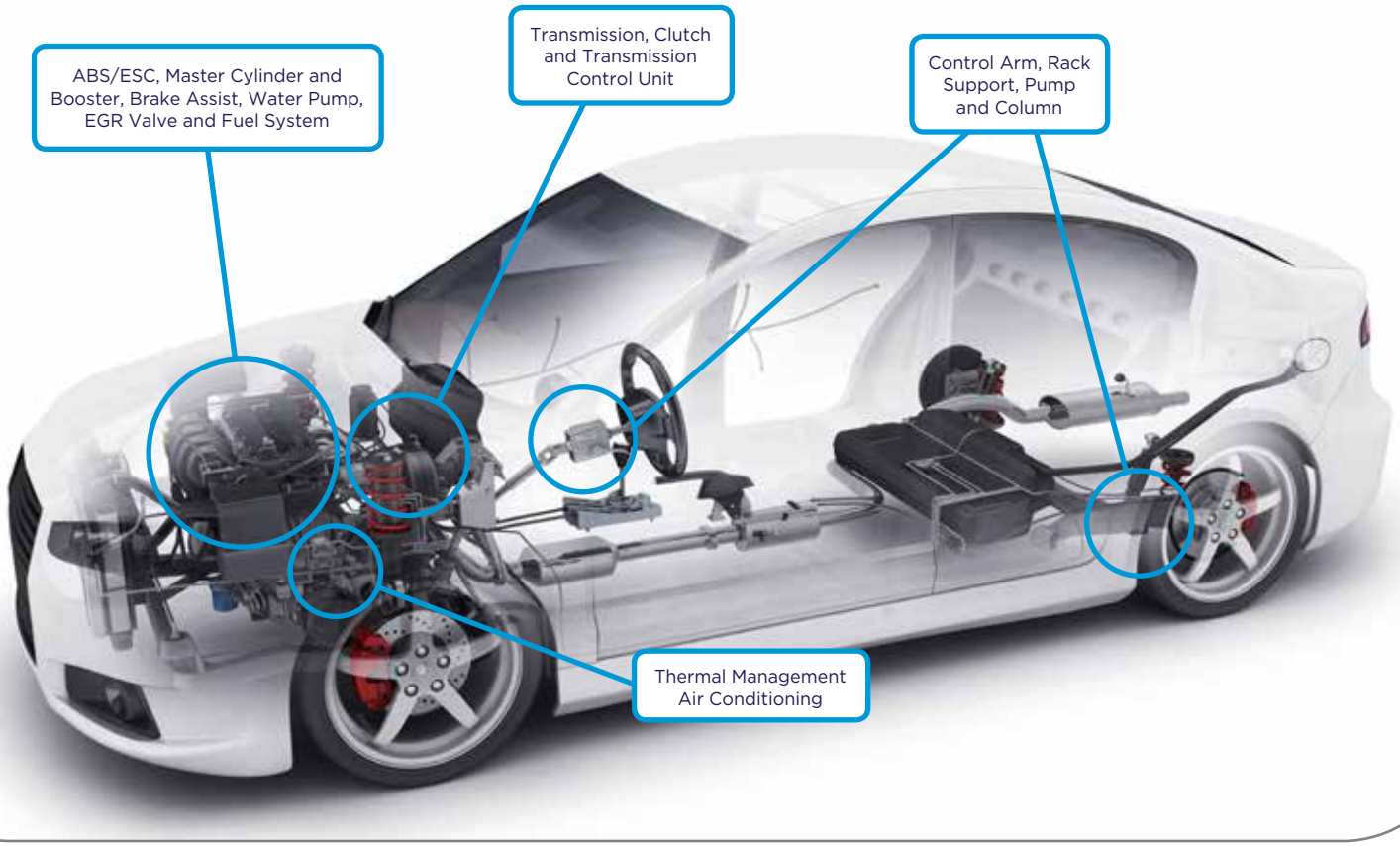
For many years, Saint-Gobain Seals has been a strategic development partner to Tier 1 leaders. Our Meldin® components assist in reducing weight, achieving a compact design, increasing performance/efficiency, and lowering NVH. Our critical applications can be found in actuation as well as hybrid and integrated systems.

Products

Meldin® Booth Retainers
Meldin® Poppets / Springs
Meldin® Spring Package
Plugs
Precision Parts

Features	Benefits
• High precision components • 0 ppm – 100% visual control • Compact design • Drop-in replacement (i.e., metal)	• Increased system reactivity • Smaller packaging space • Reduced noise • Reduced TCO • Contributes to reduce CO_2 • Weight reduction

CRITICAL PARTS MAKING THE DIFFERENCE



With the acquisition of LS Kunststofftechnologie GmbH, Saint-Gobain Seals strengthened its position in the automotive sector, specifically for the powertrain and transmission segments. Our OmniSeal®, Rulon® and Meldin® products reduce friction, leakage, wear, noise, and emission as well as contribute to increase energy efficiency.

The automotive market is always on the move to find new materials and solutions to accelerate technical innovations, meet new environmental and safety legislation, and satisfy emerging customer needs. Using cutting-edge expertise in design, tooling, testing and processing of high-temperature polymers, we are successful at producing injection molded seal rings and thrust washers, precision components, brake system components and bearings that put our customers in the driver seat.

Proven in the Past…

Saint-Gobain has a proven track record supplying the automotive and transportation industry. For more than 40 years, we have been a reliable partner to Tier 1 and Tier 2 companies as well as OEMs.

Innovation is one of our key strategic pillars, ensuring a continuous development for main automotive challenges such as emission reduction, fuel efficiency and electrification.

... Prepared to Help Drive the Future

Driving Comfort

Driving comfort is becoming more important as consumers are spending more time in their cars and want as much of a smooth and comfortable ride as possible. Whether it is heated seats, a roomy and soft interior, a quiet engine or a suspension system that feels like you may not be driving at all, automotive OEMs understand this is a key selling point that cannot be overlooked.

Aside from providing sensory enjoyment to the driver, these comfort features also affect the overall safety by reducing driver fatigue on long journeys.

Saint-Gobain Seals supplies Meldin® key components for the steering and suspension systems as well as climate control to support OEMs who want to give their drivers added peace of mind both physically and mentally.

Products	
Meldin® Ball Joints **OmniSeal® Lip Seals** **Meldin® Seal Rings** **Precision Parts**	

Features	Benefits
• Precise fit • Less free play • Less creep • 0 ppm – 100% visual inspection	• Improves NVH • Reduced TCO • Simplifies assembly • Weight reduction

Electric Drive

Electric vehicles were first introduced in the mid-19th century and were a viable mode of transportation versus the gasoline vehicles available at that time as they provided more comfort and ease of operation. During the last few decades, environmental factors and foremost legislations have made hybrid and electric vehicles a more popular alternative. Saint-Gobain Seals offers sealing solutions for the battery cooling and brake systems in these vehicles with reduced to zero emission and fluid acceleration.

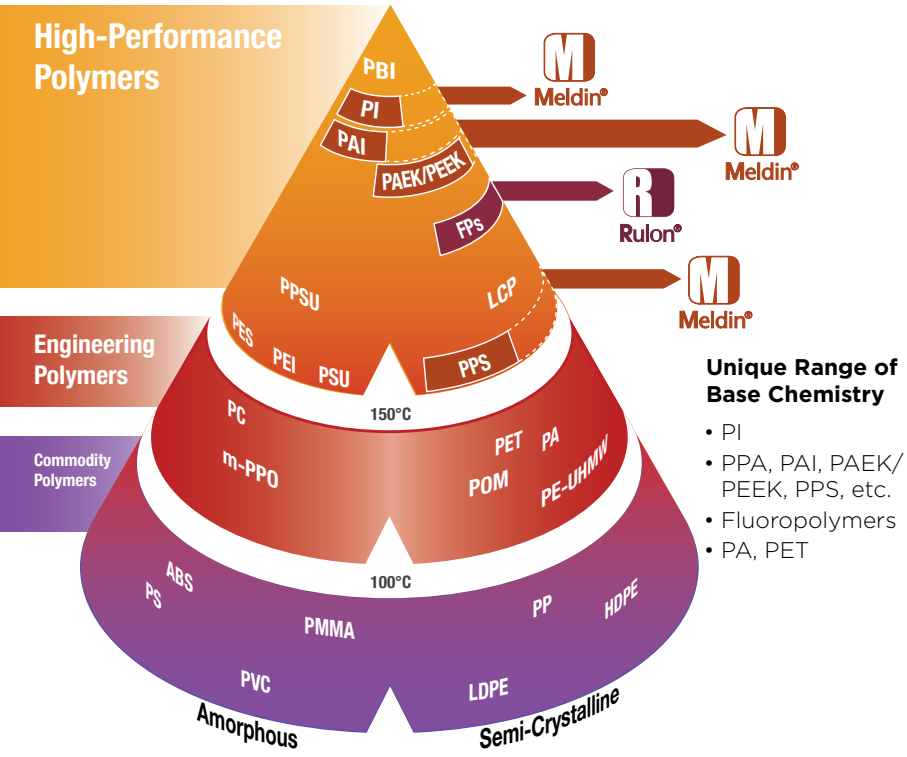
We have collaborated with several of the key players in order to develop high-tech polymer components used in the brakes and cooling devices.

Products	
OmniSeal® Lip Seals **Collector Pipes** **Magnet Support** **Precision Parts**	

Features	Benefits
• Precise fit • Reduced friction • High precision components • Drop-in replacement (i.e., metal) • 0 ppm – 100% visual inspection	• Weight reduction • Reduced TCO • Contributes to reduce CO_2 • Reduced part complexity

Powder to Parts

- Injection molding
- Machining
- Stamping
- Direct Forming
- Overmolding



Unique Range of Base Chemistry

- PI
- PPA, PAI, PAEK/PEEK, PPS, etc.
- Fluoropolymers
- PA, PET

Critical Parts Protecting Automotive Core Systems

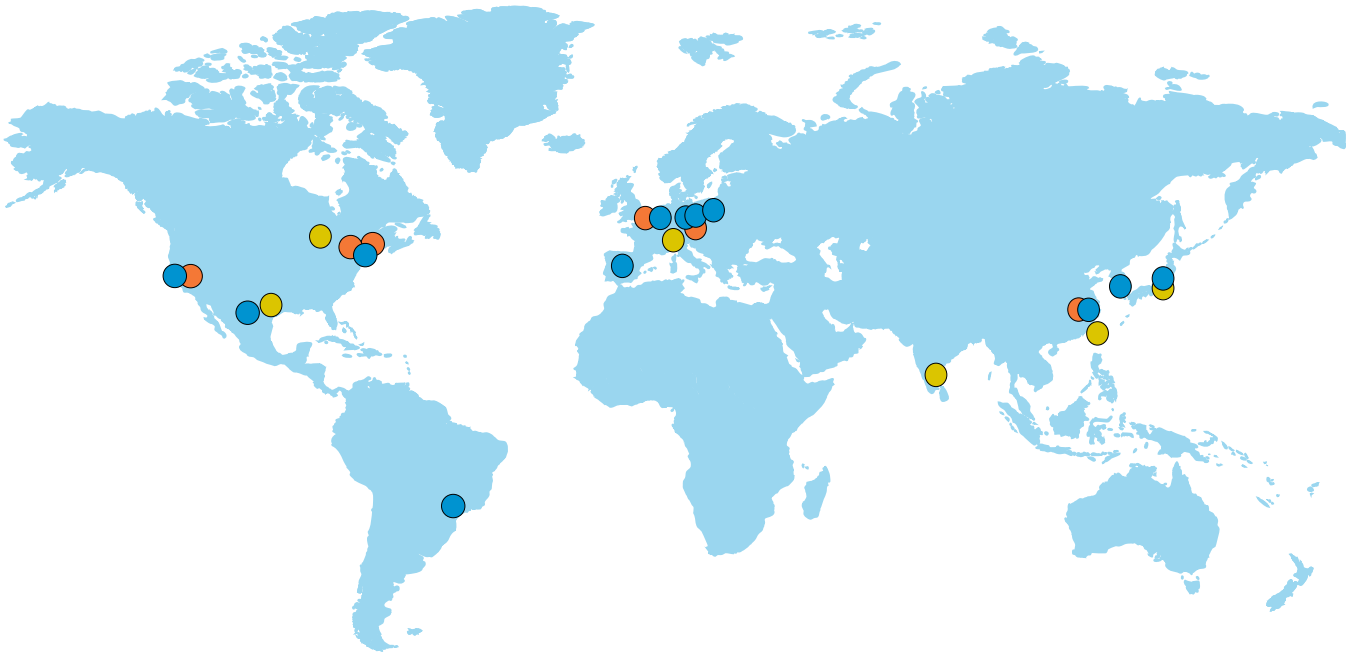
Our unique experience allows us to design sealing, material and injection molded solutions that comply with the continuously increasing performance requirements in the automotive industry.

Our Key Competencies include:

- Maintenance-free solutions
- Lightweight components
- Low friction materials
- Vibration control
- Noise reduction
- Excellent chemical resistance
- Low and high pressure sealing
- Low and high temperature resistance
- High speed sealing
- Metal replacement

Products		Main Features
OmniSeal® Sealing Control	**High-Performance Spring-Energized Seals**	• Temperatures from -253°C to +365°C (-424°F to +690°F) • Pressure: Vacuum up to 3,448 bar (50,000 psi) • Low and controlled friction • Broad chemical resistance
	High-Performance PTFE Rotary Lip Seals	• Temperatures from -53°C to +232°C (-65°F to +450°F) • Shaft speed up to 60 m/s and beyond in special cases • Pressures up to 35 bar (508 psi)
Rulon® Wear & Friction Control	**High-Performance PTFE Filled Compounds**	• Temperatures from -268°C to +316°C (-450°F to +600°F) • Low friction, high wear life and broad chemical resistance
Meldin® Tolerance Control	**High-Performance Thermoplastic Materials**	• Temperatures from cryogenic through +316°C (+600°F) intermittently up to +482°C (+900°F) • Superior strength and rigidity combined with self-lubrication properties

A Global Network of Expertise and Service



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