

MobilityScience™

Rethinking Tire Performance for a More Sustainable Future

Discover how self-sealing silicone technology can help
accelerate your sustainability and innovation roadmap

DOW®

A black car is shown from a low angle, driving on a winding road. The background is heavily blurred, suggesting high speed. The car's front wheel and side mirror are visible. The overall scene is dynamic and emphasizes performance.

SILASTIC™ SST 8860 Self-Sealing Silicone

Safer Mobility

Smarter Manufacturing

Sustainable

Rethinking Tire Performance for a More Sustainable Future

As the mobility industry accelerates toward electrification, efficiency, and circularity, tire manufacturers are seeking solutions that deliver enhanced safety and performance while supporting sustainability objectives.

SILASTIC™ SST 8860 Self-Sealing Silicone is a two-part, ambient curing elastomer engineered to meet OEM performance requirements across the full tire lifecycle. It forms a durable self-sealing layer on the inner tire surface, delivering reliable puncture sealing and extended drive capability without loss of air pressure. Designed at the end of life for fast, high-volume production, the material offers easy processing, long working time, and stable performance across temperatures. At the end of life, it can be effectively separated from the tire, enabling efficient recycling and supporting a more sustainable future.

Uses



Self-sealing tire technology for puncture protection and air retention



Suitable for a wide range of tire types, including passenger cars, light trucks, off-road vehicles, two-wheelers, e-bikes, scooters, and bicycles

Applications

Creates a self-sealing inner tire layer that supports pressure retention after punctures from nails or screws. Suitable for passenger vehicle and two-wheeler tire manufacturing applications.

Processing

Compatible with standard two-part dispensing systems and static or dynamic mixers. Easy-to-apply, non-sagging formulation enables efficient production with no mold-release cleaning required. Ambient curing with optional heat acceleration provides manufacturing flexibility.

Why Choose SILASTIC™ SST 8860? ”



Eliminates the need for a spare tire, reducing vehicle weight while improving range, fuel efficiency, and design flexibility.



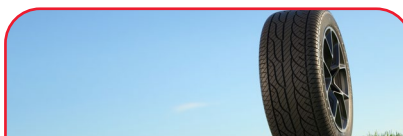
Enables fast, room-temperature tire manufacturing using standard production equipment.



Removes the need for laser cleaning of the tire surface prior to application.



Requires only a thin silicone layer to deliver effective puncture sealing, long term stability, and airtight performance



Can be cleanly separated from the tire at end-of-life, enabling efficient recycling of both tire and silicone materials

Advancing Sustainability Throughout the Tire Lifecycle

Lightweighting

Reduce vehicle weight and improve energy efficiency

- Compared with traditional run-flat inserts, the lightweight sealant can cut the material weight of each tire by **up to 85%**
- Supports elimination of spare tires, helping improve fuel efficiency and EV driving range

Repairability

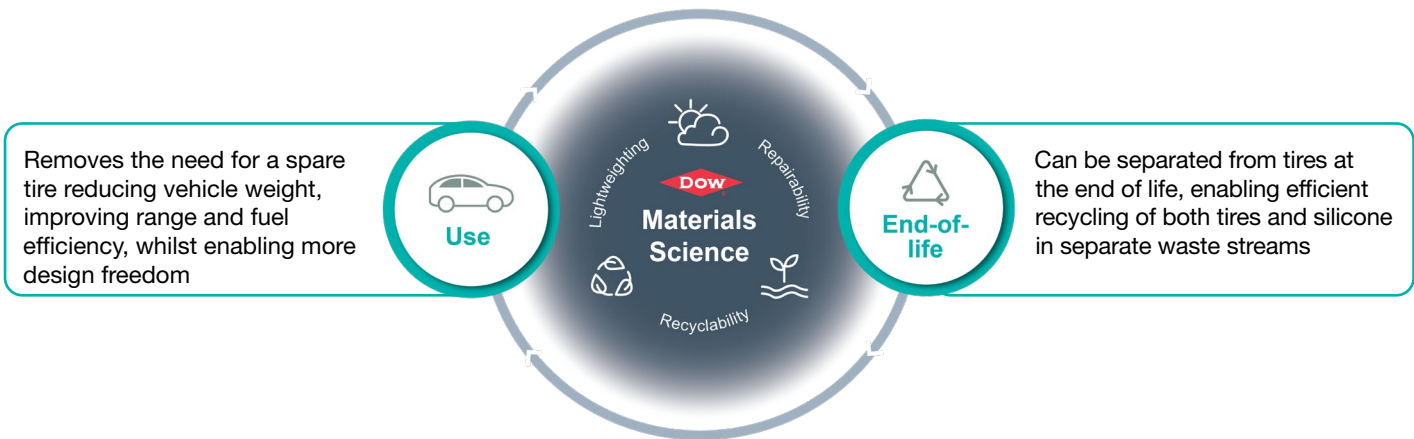
Extend tire service life

- Supports continued tire performance after puncture events
- Enables tire repair and extended service life, helping reduce waste generation

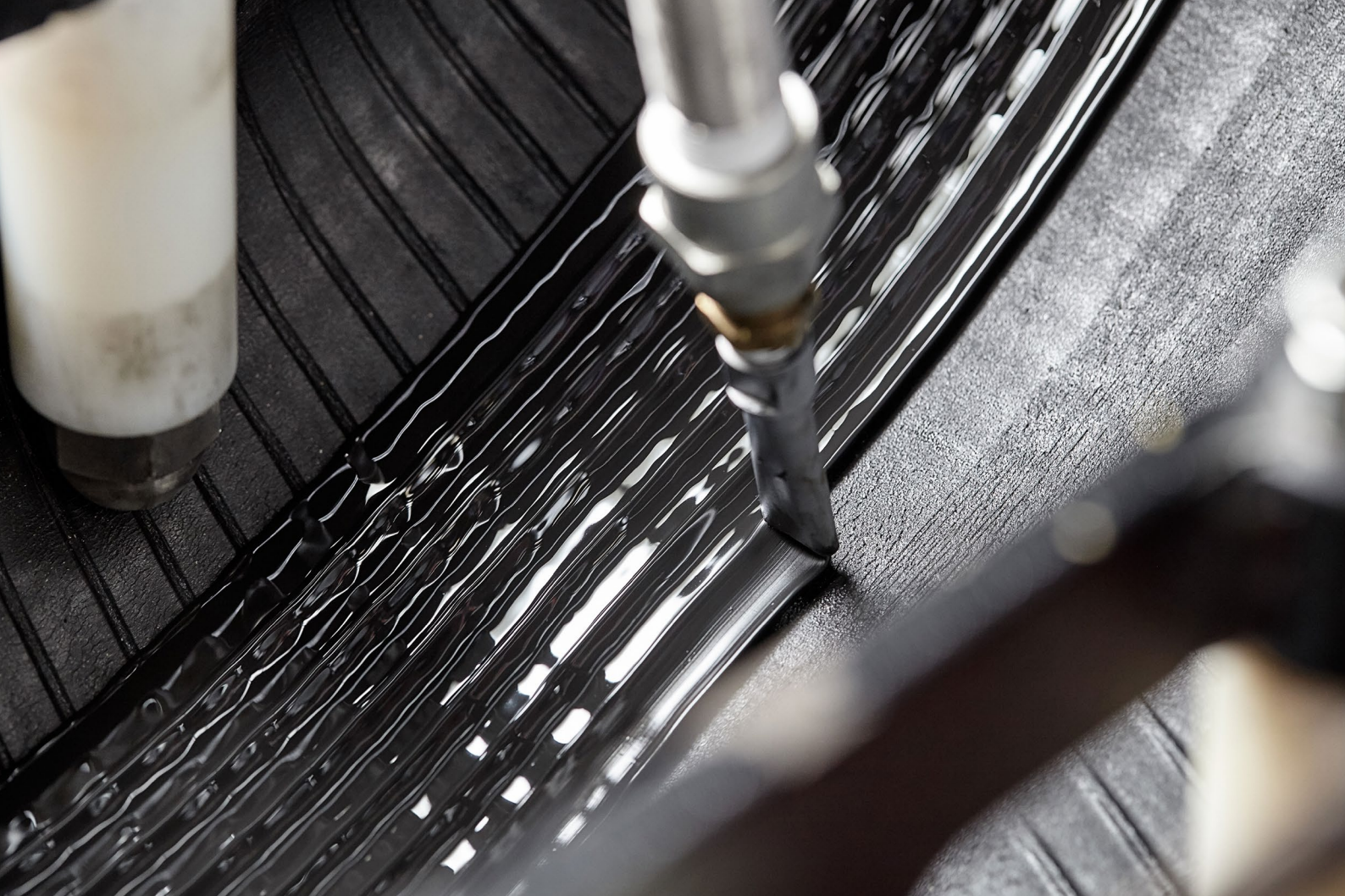
Recyclability

Supporting a more circular tire economy

- Silicone sealant can be separated from tires at the end of their service life
- Enables more efficient recycling of both tire materials and silicone in separate waste streams
- Supports industry efforts toward circularity and carbon reduction goals



Key Benefits at a Glance		
Performance	Manufacturing	Sustainability
Extended mobility after punctures	5x faster application	Up to 85% lighter than run-flat inserts
Excellent sealing durability	No laser cleaning required	Supports elimination of spare tires
Consistent performance from -40°C to 100°C	Room-temperature processing	Repairable tire solutions
Maintains comfort and handling	No pre-compounding required	End-of-life recyclability



MobilityScience™

How can we help with your latest innovations?

Learn more at www.dow.com/tire-solutions



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