

Product portfolio

Engine Bay · Interior Floor · Underbody
Sustainable Champions · New Mobility
Measurement Systems · Simulation Tools



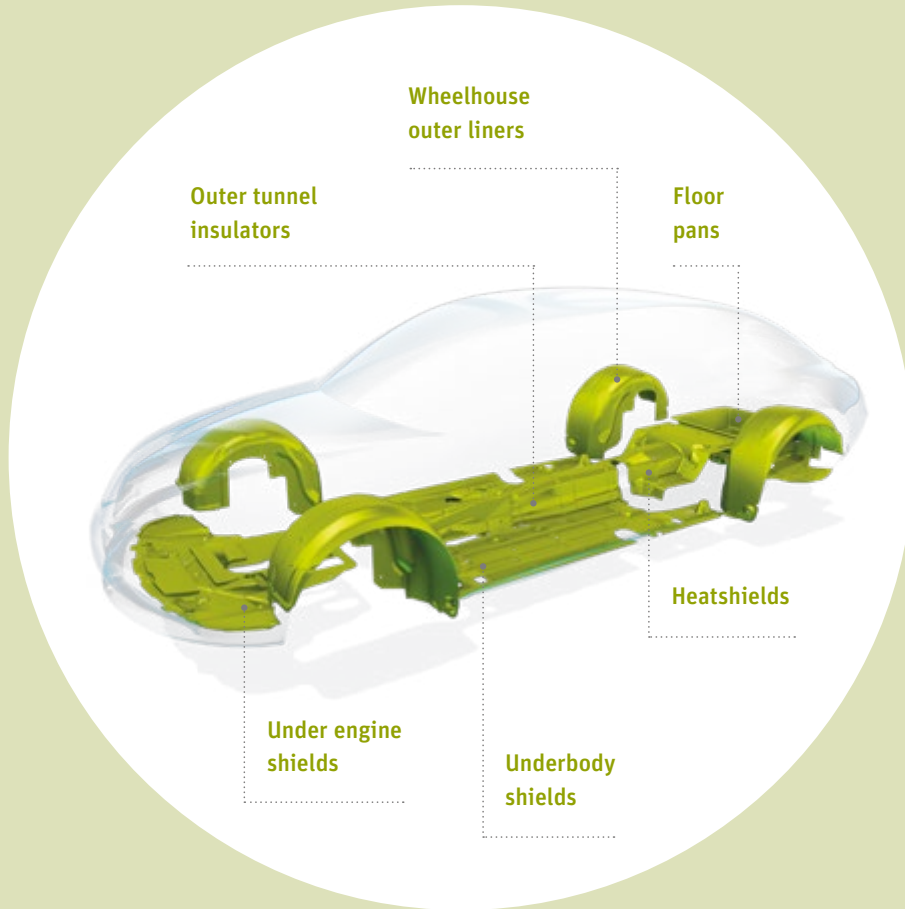


Underbody

Textile-based and correspondingly lightweight underbody systems of Autoneum absorb noise and therefore simultaneously reduce the interior and exterior noise of cars. They also enhance the aerodynamics of a vehicle. This leads to lower fuel consumption and reduced vehicle emissions.



For further information, please contact:
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These products include a variety of features and benefits



Autoneum supplies underbody components to these customers



Ultra-Silent

The lightest textile underbody system



With underbody systems made of Ultra-Silent, Autoneum offers the most lightweight textile underfloor systems for vehicles: They are up to 50% lighter compared with equivalent plastic components. Underbody systems made of Ultra-Silent also convince with a high degree of impact resistance and optimum stone chip protection. The PET based, glass-free mono-material is resistant against water and heat and fully recyclable.

At the same time, Ultra-Silent absorbs sound and in doing so reduces the vehicle noise by up to 2 decibels. In addition, underfloor systems made of Ultra-Silent enhance the aerodynamics of vehicles by reducing their air resistance. This contributes to lower fuel consumption and thereby reduces CO₂ emissions. The sophisticated engineering behind Ultra-Silent helps reduce mass, the number of fixation points, part numbers, overall complexity and costs. This makes Ultra-Silent a convincing value offer for OEMs.

In electric cars, undercovers made of Ultra-Silent are installed underneath the battery casing, providing the battery cells with the best possible protection against extreme ambient conditions

BENEFITS

Lightest textile underbody technology

Benchmark fixation point strength and stone-chipping performance

100% PET

completely recyclable and safe handling

Alpha-Liner

Optimum tire noise reduction



BENEFITS

Enhanced acoustic absorption

Anti-icing

Stone impact protection

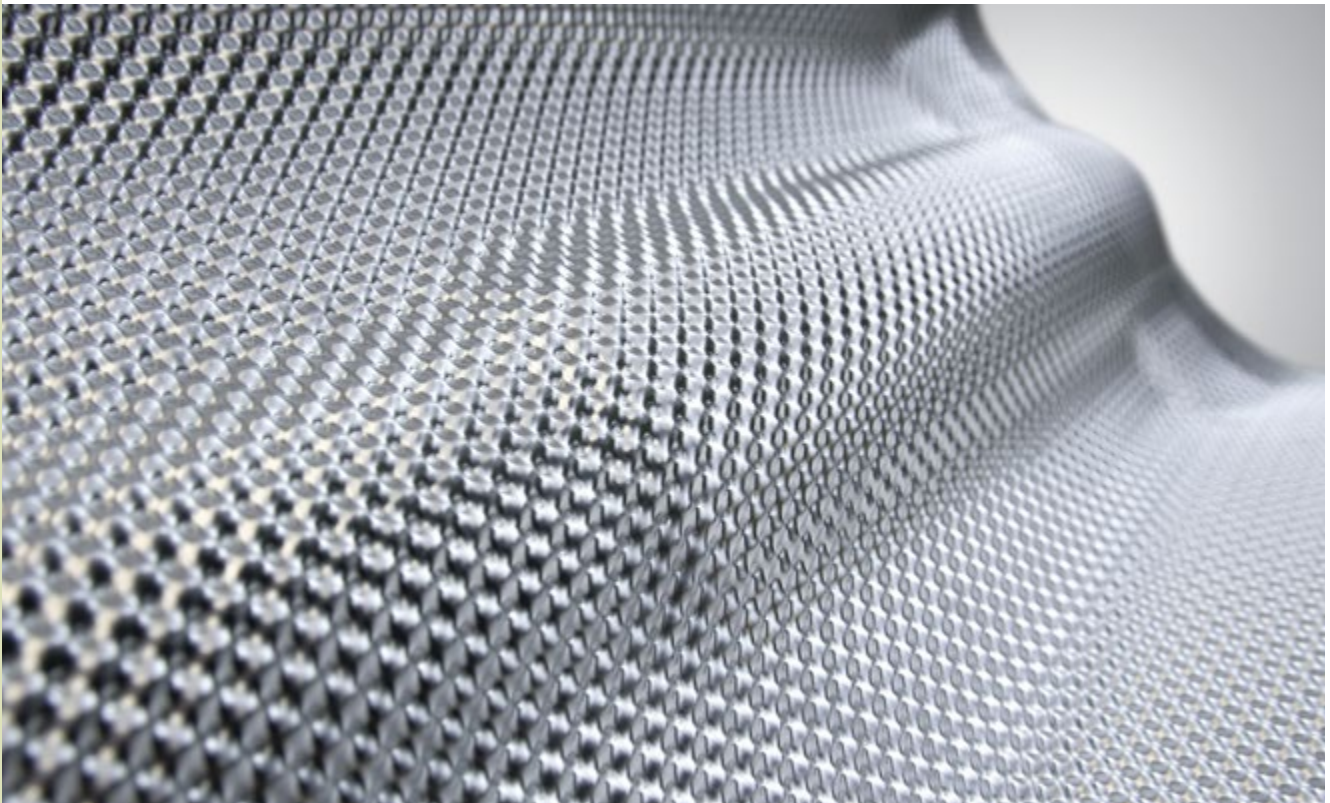
100%

acoustically tunable

The newly-developed Alpha-Liner is a lightweight textile wheelhouse outer liner featuring a thin coated surface on the tire side. Thanks to this innovative technology, the porosity of the textile material is tuned to maximize the sound absorption, what contributes to the reduction of tire noise and accordingly improves pass-by level as well as passenger comfort. This advantage is key for car manufacturers, especially in light of increasingly tightening exterior noise regulations worldwide. Sound-reducing components are also essential for electric vehicles because tires have to be insulated here even more: Due to the lack of the engine noise, they are more audible for passengers. The coating can be adapted to the specific requirements of every vehicle, thereby protecting the textile carrier in areas strongly impacted by water and stone chipping for instance. The plasticized surface is also easier to clean than standard textile wheelhouse outer liners with less ice accumulation on the component. The manufacturing process of Alpha-Liner is solvent-free and eco-friendly. Applied only where it is most effective, the coating allows the recyclability of the production trim waste.

RIMIC

Heat protection and noise absorption



Heatshields are used in vehicles primarily to provide protection against the heat that arises in the engine bay and the exhaust system. In order to shelter this radiant warmth, these shields are heat-resistant up to 500°C. Acoustic heatshields based on Autoneum's RIMIC technology additionally reduce the noise emission of the vehicle thanks to their integrated acoustic function. The noise reduction is achieved by means of a special perforation developed by Autoneum. It converts the airborne sound into thermal energy and absorbs it. Using in-house production processes, these perforations are applied specifically only at predefined areas to ensure optimal heat protection and durability. The acoustic performance of heatshields is controlled by the number and density of openings per shield. RIMIC can be used as a single layer, with glass fiber mats or in combination with the Theta-Cell acoustic absorption technology in order to facilitate the absorption of high-frequency sounds of between 2 – 6 kHz.

BENEFITS

Maximized tunable acoustic performance

High durability thanks to optimized design of perforation area

High heat protection