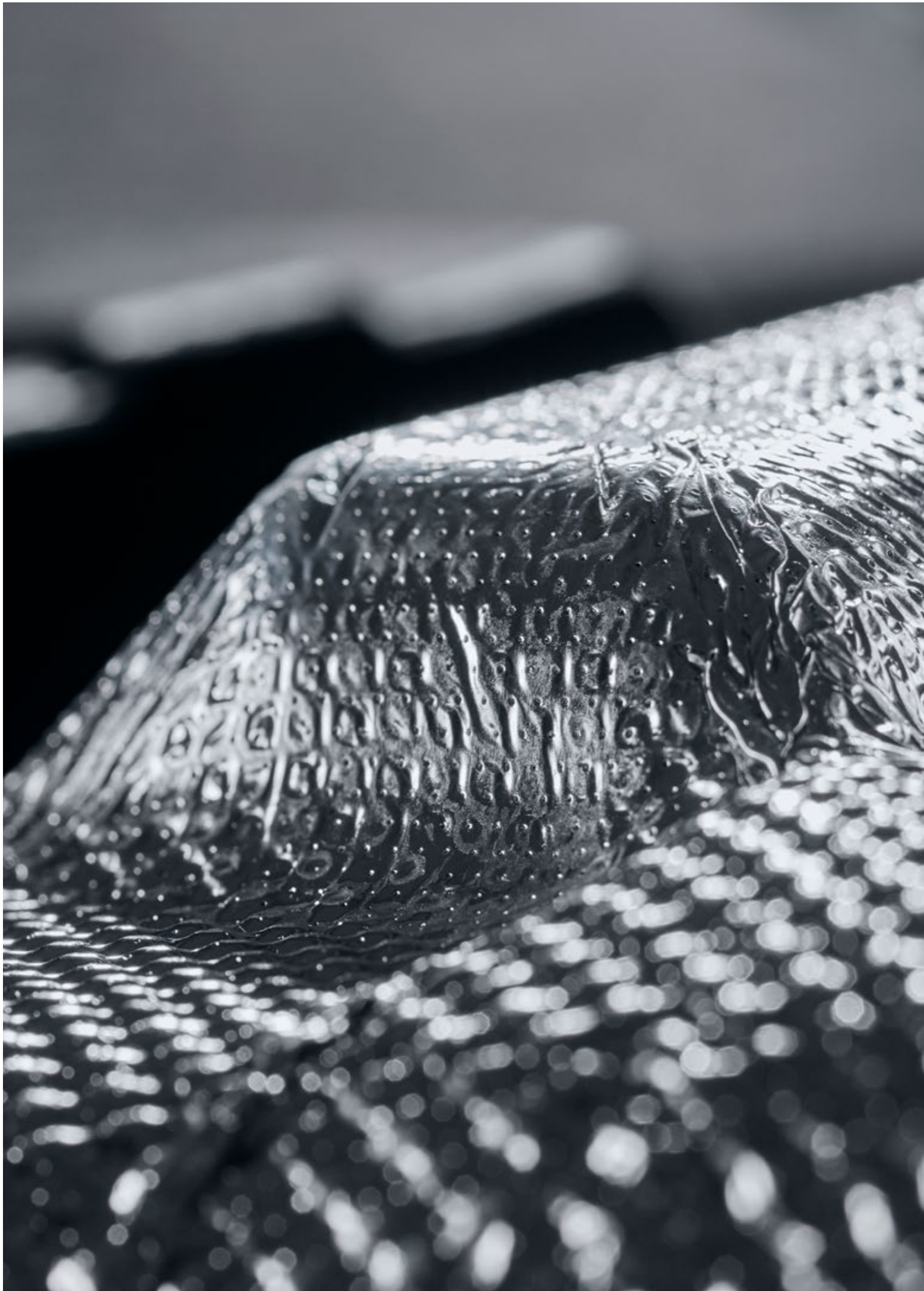


Product portfolio

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



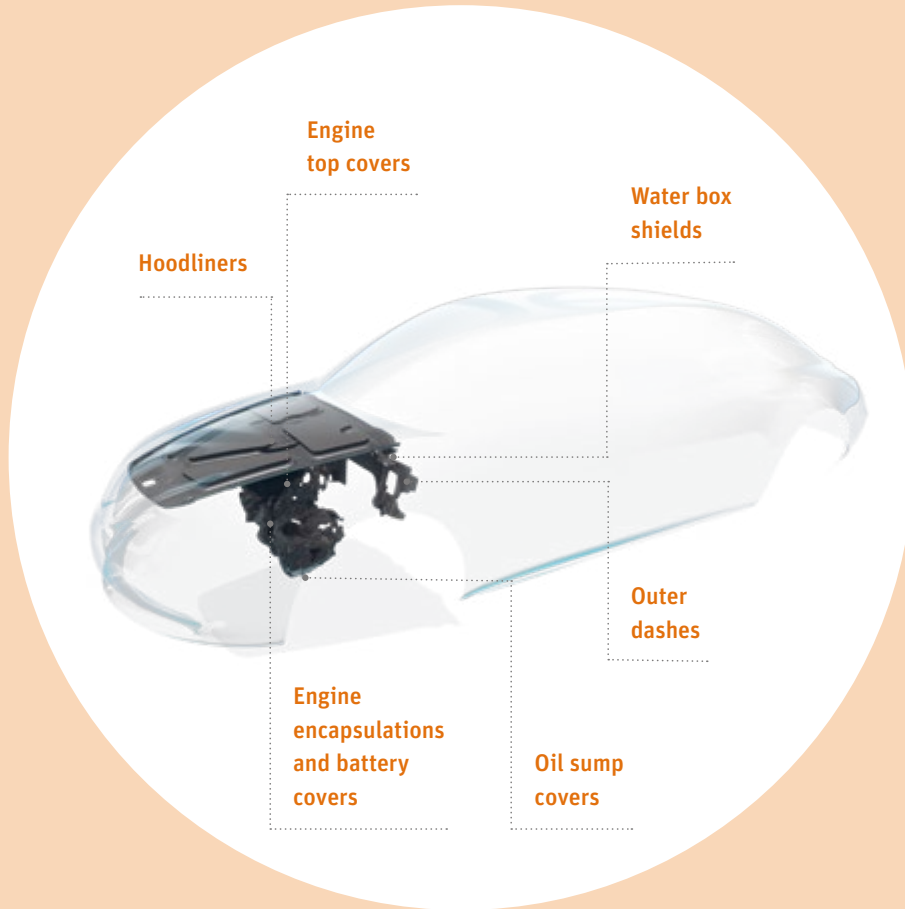


Engine Bay

Engine bay is the vehicle area where most of the noise and heat sources are concentrated. With innovative lightweight and multi-functional components, Autoneum helps automobile manufacturers to address new regulations for pass-by noise and CO₂ emissions.



For further information, please contact:
Autoneum | Global Product Management Engine Bay
engine-bay@autoneum.com



These products include a variety of features and benefits



Autoneum supplies engine bay components to these customers



Theta-FiberCell

Key technology for engine encapsulations



Innovative engine encapsulations enhance the efficiency and sustainability of vehicles: The heat storage in the engine bay achieved with the encapsulations reduces fuel consumption at the next cold start, which in turn leads to lower vehicle emissions.

Theta-FiberCell, the key technology for engine encapsulations combines the benefits of the fiber carrier Theta-Fiber and foam absorber Theta-Cell and is based on Autoneum's long-standing experience. It takes into account customer-specific product requirements such as optimum noise protection and integrated thermal insulation. For instance, Theta-FiberCell is barely flammable and can withstand temperatures of up to 200°C.

As well as the acoustic absorption of interior (by up to 4 decibel) and exterior (by up to 8 decibel) noise, the fiber-foam solution enables heat to be stored for long periods after the vehicle has been parked. After being switched off for 12 hours, the temperature of an engine with Theta-FiberCell encapsulation is up to six degrees higher than one without this special insulation.

BENEFITS

Lightweight fiber-foam solution

High acoustic absorption

Resistant to engine vibration

200° C

Heat insulation and temperature stability up to 200° C

Theta-Fiber

Multifunctional non-woven technology



BENEFITS

Low weight

High
temperature stability

The engine bay compartment is a major source of heat and noise in any vehicle. Therefore, it has to be acoustically and thermally isolated in order to increase passengers' comfort. For that, Autoneum offers Theta-Fiber, a robust and multifunctional non-woven material.

Theta-Fiber stands out against conventional non-woven components above all thanks to its high temperature resistance: While traditional thermoplastic materials are able to withstand temperatures of up to 150°C, noise and thermal insulation parts based on Theta-Fiber can also be applied at temperatures of up to 200°C.

Compared to traditional heavy engine covers made of solid plastic, Theta-Fiber engine covers achieve weight savings of up to 60%, reduce the interior and exterior noise of vehicles and insulate heat generated by the engine.

Theta-Cell

Durable and lightweight foam absorber



Theta-Cell is an innovative polyurethane foam material developed by Autoneum. It is used for different applications such as lightweight and multifunctional hoodliners, outer dashes, tunnel insulators and battery covers. Compared with conventional acoustic absorbers, Theta-Cell components can be used to achieve weight reductions of up to 60% as well as high thermal insulation.

Products based on Theta-Cell are able to withstand temperatures of up to 180°C at peak; they meet customer requirements and legal provisions with regard to the non-flammability of components for the engine bay. They are also oil and water-repellent and help to reduce the interior and exterior noise of vehicles.

BENEFITS

robust and
multifunctional

Premium
acoustic absorption