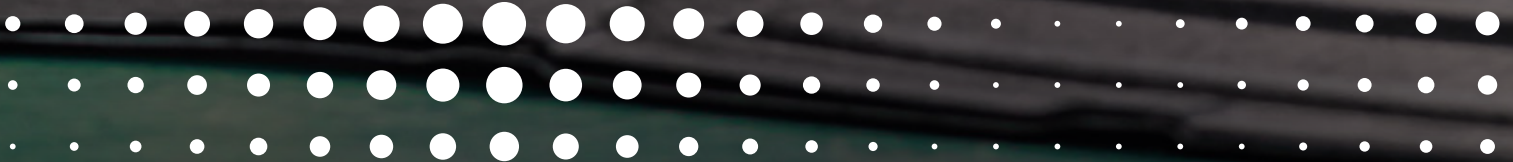


Product portfolio

Interior · Exterior
New Mobility · Autoneum Pure.
Measurement Systems · Simulation Tools



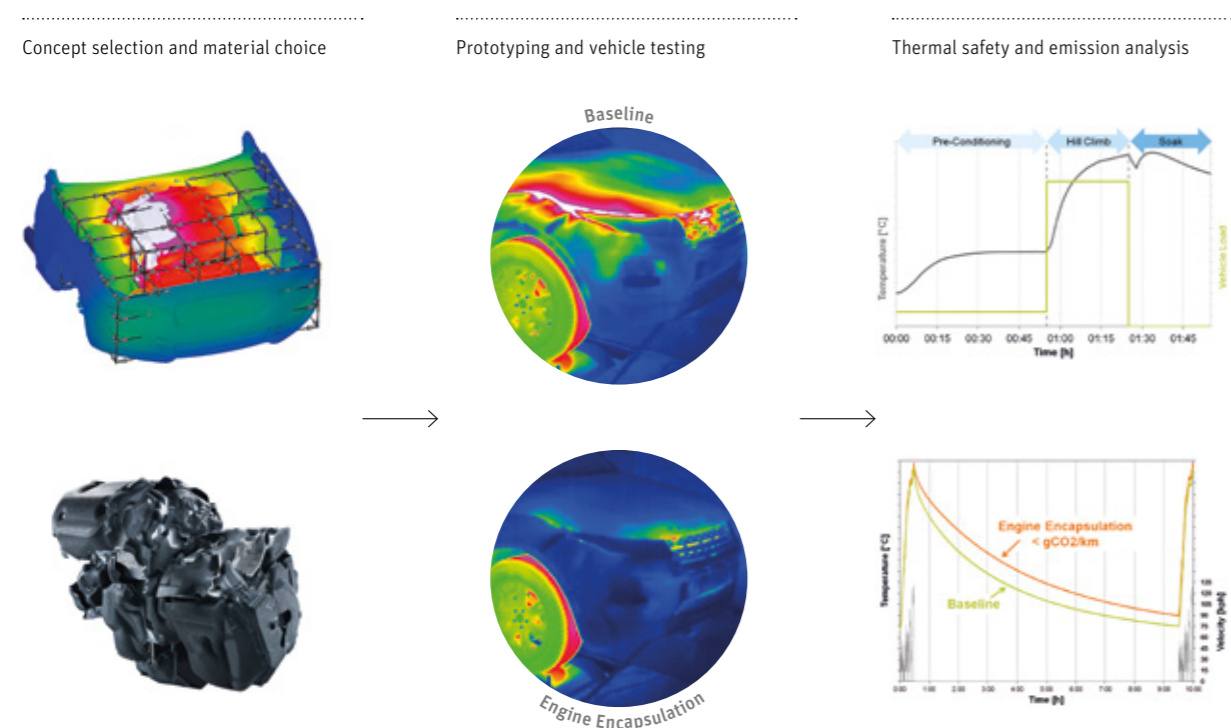
Thermal management for the next vehicle generation

At global research and development centers, Autoneum carries out material testing on components as well as in vehicles and uses unique simulation software to design innovative packages that are tailored to customer needs.

Autoneum provides full engineering services for thermal performance, safety and storage from concept selection and material choice to part design and optimization by using computer aided engineering (CAE) software. Thanks to these solutions, the Company's experts can analyze better design options faster and earlier in the vehicle development process.

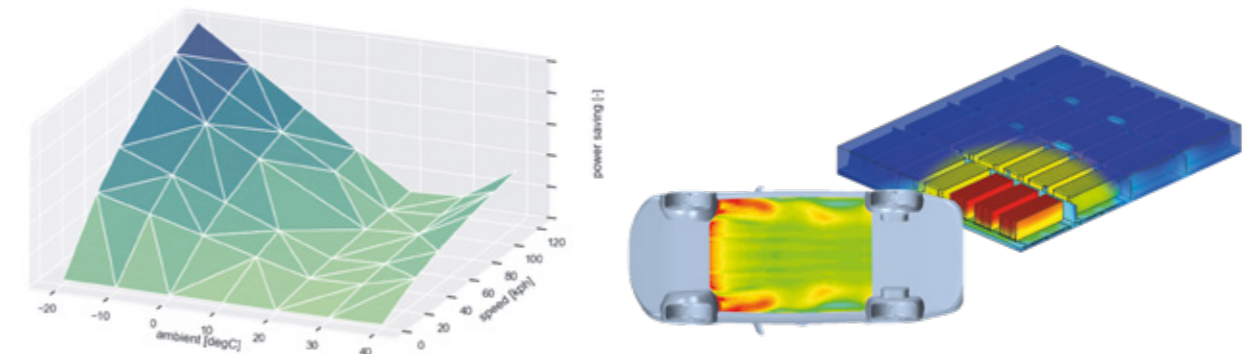
Case study: E-motor and engine encapsulation pre-development workflow

Based on a smart and accelerated combination of Star-CCM+ and TAITherm, the cooldown duration and efficiency of engine encapsulations is evaluated in shorter time.



Case study: Improving battery performance and protection

With its specialized CAE software developed in-house, Autoneum supports customers in optimizing the thermal management of the battery. This includes the design of the battery structure with coolant circuits among others to calibrate temperature resistance. These simulations thereby help to improve battery performance and correspondingly result in lower energy consumption.



Assessment of interior parts for greater thermal comfort

In order to develop carpet systems, inner dashes and floor insulators that not only provide noise protection, but also optimal thermal comfort inside the passenger cabin, Autoneum offers state-of-the-art simulation tools. These programs factor parameters such as external and internal convection, surface and solar radiation, cabin conduction, heat storage or varying part insulation

properties to simulate components that meet the special requirements for thermal management of vehicles. This is also key for electric cars as such components are needed to shield the passenger cabin from cooling or heating, thereby reducing the energy required for temperature regulation. Applying Autoneum's simulation tools in predevelopment thus supports a higher driving range.

Case study: Carpet part simulation and mechanical testing

Combining virtual calculations with the Company's mechanical testing expertise in the predevelopment of carpet systems also enables Autoneum to evaluate the compression performance of the floor system. This is crucial for enhancing part quality.

