autoneum

Product portfolio

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

Thermal management solutions for vehicles

Autoneum's range of automotive thermal managment solutions includes state-of-the-art thermal testing and calculation processes to develop components for the insulation, shielding and storage of heat.

At global research and development centers, Autoneum's thermal management experts carry out material testing on components and in vehicles and use unique simulation software to develop innovative thermal protection packages that are tailored to customer needs.

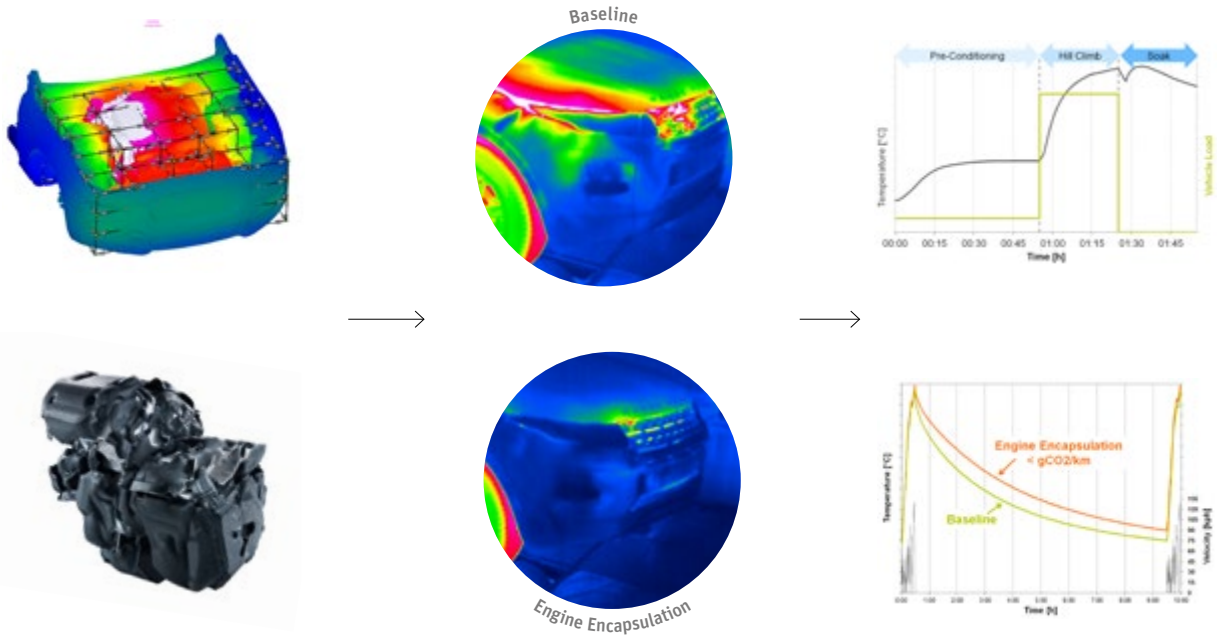
For example, Autoneum offers Theta-FiberCell, a key technology for innovative engine bay parts like engine encapsulations, engine top covers or hoodliners. Autoneum provides full engineering services for the predevelopment and development stage for thermal safety, heat storage as well as acoustic validation at vehicle level.

For further information, please contact:
Autoneum | Thermal Management
tm-support@autoneum.com

Concept selection and material choice

Prototyping and vehicle testing

Thermal safety and emission analysis



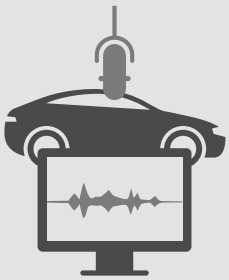
Example

Engine encapsulation pre-development workflow

Autoneum offers a variety of thermal management solutions for its customers

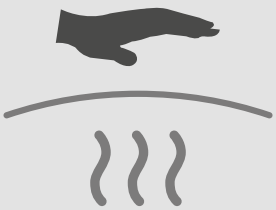
Part simulation for thermal and acoustic performance

VisualTherm: predicting the thermal insulation performance of engine bay parts
VisualSISAB: predicting the acoustic absorption and insulation performance



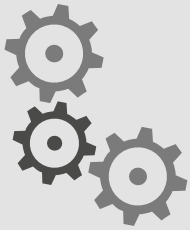
Autoneum‘s global vehicle testing facilities

To perform OEM’s thermal safety cycles and 24 hours cooldown measurements for engine encapsulation efficiency assessment.



Engine cooldown methodology

Based on a smart and accelerated combination of Star-CCM+ and TAITherm to virtually evaluate the cooldown duration and efficiency of engine



Material measurement equipment

To enable the creation of temperature- and density-dependent thermal property databases.