

LIGHTWEIGHTING

WE OFFER

- ...the entire process chain from material development – material testing – application specific adapted simulation methods – experimental and virtual testing.
- ...dimension and design your components and systems in line with your demands.
- ...development of models to realistically describe material, component and system behavior.
- ...tailored solution for your numerical simulation.
- ...experimental characterization of your components and systems from static to dynamic, from cyclical to vibro-acoustic and also from multi-physical point of view.
- ...technical workshops and/or advanced training around the listed topics.

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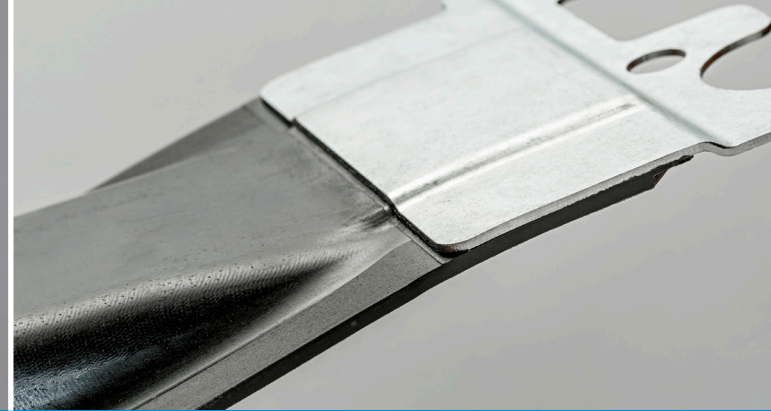
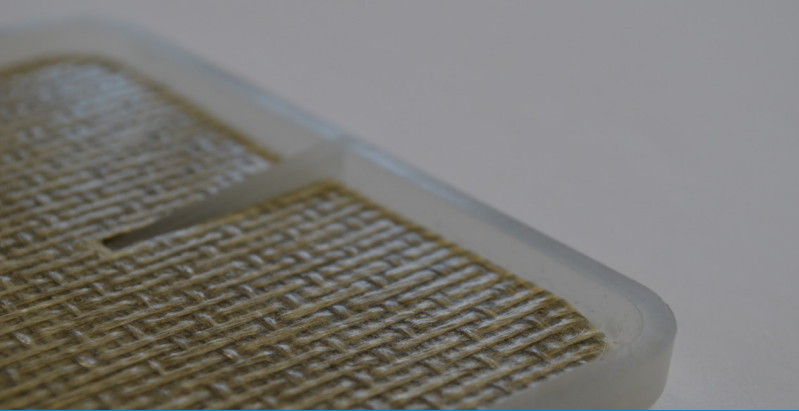


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LIGHTWEIGHT DESIGN IN CHANGE

New mobility technologies and the the overall perspective in emission reduction place new demands lightweight design of structures and components. The ambitious goal of next generation of lightweighting is not the reducing of component weight by 15 percent, but rather around 50 percent. New materials, products, technology, functional integration and the thinking in new concepts are therefore essential!

For successful exploitation of the potential of lightweight design a systemic approach, linking the competencies along the process chain from concept phase to marketable implementation, is necessary. In the concept phase, the use of coupled numerical simulations can significantly reduce development times and costs (see scheme on the right). Digitalization of the development process from construction to testing is a further important step for accelerate the design process and product release.

