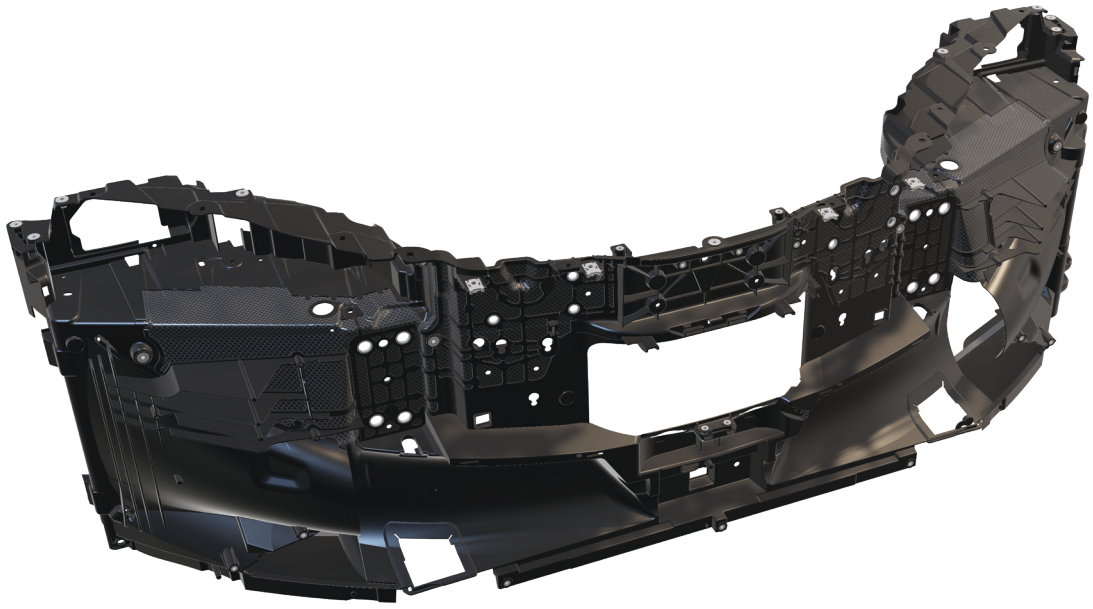
FACT SHEET

Composite hybrids

SUITABLE FOR E-MOBILITY APPLICATIONS

ElringKlinger's composite hybrid technology offers functionality with minimum weight. It can be utilized for structural vehicle components like front-end carriers or door modules replacing metal or casting structures.



Maximum functionality – minimum weight
Composite hybrids made by ElringKlinger

Technology

Composite Hybrids are made of endless fiber composites (Organo-Sheets or UD-Tapes) which are pre-heated and over molded and finally functionalized with a thermoplastic material in a "ONE-SHOT-PROCESS".

+ **EXCELLENT WEIGHT-PERFORMANCE RATIO**
  Compared to metal welding or casting components the technology offers an excellent performance on a lightweight level.

+ **LOAD PATH BASED DESIGN**
  Utilization of endless fiber composite inlays allow load path-based designs and specific re-enforcements.

+ **FUNCTIONAL INTEGRATION**
  The plastic injection process enables an easy functional integration for e.g. local fixation points, guiding features, support features, mounts, etc.

Benefits

PRODUCT BENEFITS

+ High weight reduction potential
+ Load path oriented design
+ Further functional integration easily possible
+ Various material combinations possible
+ High dimensional accuracy

MANUFACTURING PROCESS

+ Short cycle times / high automation
+ No rework on structures necessary
+ High process stability and repeatability
+ Long production history with composite hybrids

ELRINGKLINGER – YOUR PARTNER FOR HFH COMPONENTS

Product Development (Design, Engineering and Simulation) – Process Development – Tool Shop –
Tool Sampling/Prototyping – Testing – Change-Management – Series Production – Part Measurement

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