

Multimaterial composites - lightweight materials of the future: Innovative manufacturing processes & material characterization

Lightweight construction is a key technology for a wide range of industries. Combining metals, reinforced plastics such as carbon fiber reinforced plastics (CFRP) and natural materials? Sounds tricky, but offers great opportunities for efficient lightweight construction. New applications and technologies for these future-ready materials are being researched in different projects.

At IMFAA, several research projects are being conducted on:

- Joining technologies with other lightweight materials (e.g. aluminum)
 - Adhesive bonding & thermal direct joining
 - Additive manufacturing
- Digitalization in materials science
- Aging, strength behavior and fatigue of multimaterial composites
- Sustainability and recycling of multimaterial composites
- **Do you want to help shape the lightweight construction age?**
Get in touch with us!

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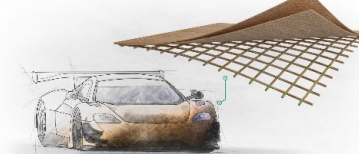
Source: airbus.com



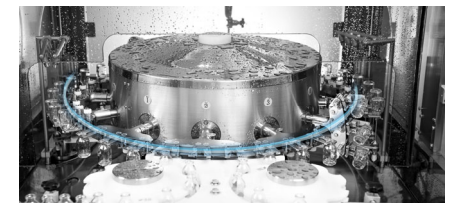
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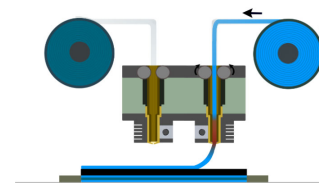
Hybrid Gears
Source: Handtmann



Biobased FRP for Motorsports
Source: Bcomp



Bearing Computer Tomograph
Source: Franke



Hybrid Joining via 3D-printing
Source: Helmholtz-Zentrum

