

Evaluate and Implement Composite Manufacturing with Thermoplastic Tape Technology



Our technology specialists support you in the evaluation and implementation of thermoplastic tape reinforcement technology for composite parts. Using the latest state-of-the-art methods for part and process design, we provide insight into part performance as well as cost and environmental impact related KPIs. Our extensive machinery and testing infrastructure is available for development and prototyping.

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Our assets related to tape technology:

Our experts leverage the ecosystem of RWTH Aachen University to offer complete solutions including

- Component evaluation for tape technology applicability
- Target driven optimisation by precise parameter and load case definition
- Component redesign for integrated tape application, warpage minimisation
- CAx based analysis for evaluating cost weight and CO₂-footprint
- All relevant testing and production infrastructure for material characterization, forming and moulding of (hybrid) parts with tape reinforcement
- Manufacturing of tape laminates and inlays by placement and winding
- Benchmarking with other technologies

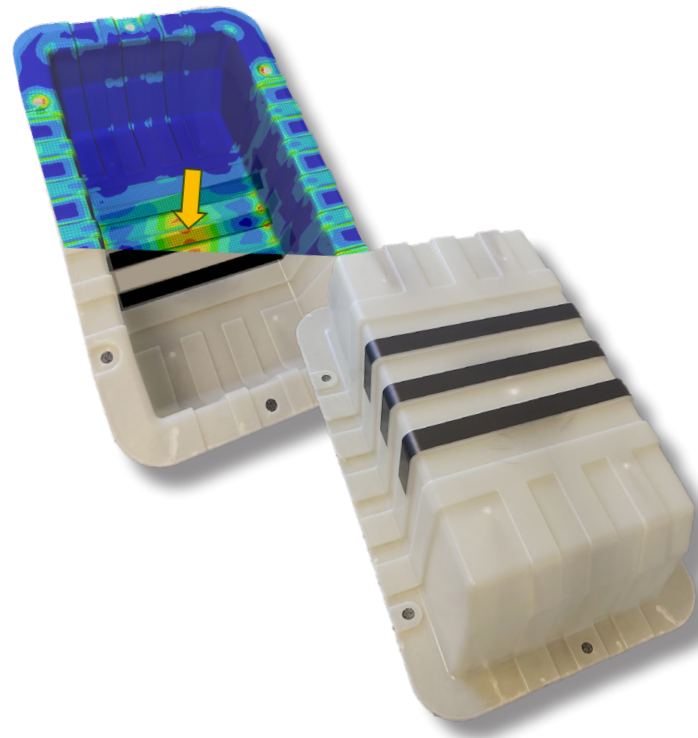
How it works:

Our methodology ensures seamless technology integration, e.g.:

- Initial component evaluation for tape technology suitability - 2 weeks
- In-depth design study incorporating CAx chain - 8 weeks
- Validation prototyping and testing phase - 2-6 months

Optional Enhancement:

In collaboration with our network, we provide the additional service to define tasks and identify suppliers/partners for implementation and ramp up of production.



Our Expertise

As a one-stop shop for market and technology know-how, the AZL brings together experts and decision makers from academia and industry of all positions in the value chain, to support business and technology development. Located in the heart of one of the leading high-tech ecosystems, RWTH Aachen University, AZL assists in the development, benchmarking and improvement of composite-based multi-material technologies. In addition, the AZL Partnership framework offers access to an open innovation network of international companies to find solutions for industrial implementation and establishment of lightweight technologies in the market.



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