Automated production of thermoplastic composite parts using AFPT’s laser-assisted placement technology

AFPT GmbH
Thermoplastic composites

- AFPT is using pre-impregnated tapes, consisting of unidirectional fibres and a thermoplastic resin.
- The fibres are responsible for high strength and stiffness of the composite material.
- The thermoplastic resin protects the fibres from environmental influences.

thermoplastic resin (e.g. PE, PP, PA, PPS or PEEK)

reinforcement fibres (e.g. glass- or carbon-fibres)
Laser-assisted tape placement technology

- The thermoplastic prepreg material is laser heated to the processing temperature
- A placement head positions the prepreg tapes, on the required mould or mandrel
- A fast control system maintains the desired parameters like process temperature, consolidation pressure and tape tension.
- The AFPT process results in a composite component which is ready to use (in-situ consolidation)
- All process parameters get logged and can be used for all kind of quality assurance reasons.
AFPT’s production systems

AFPT provides

• Complete production systems for industrial composite manufacturing
• R&D cells
• Single- & multi tape placement systems
• Customized AFP solutions
Technical center for the production of components

In our technical department we can support you with

- Product development
- Small scale production
- Process development
- Training & commissioning of machines
Contact us

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