Fibre Reinforced Thermoplastic Tapes
Carbon-Thermoplastic Tape

Case Study

Manufacture of Complex Structures
The process of automated tape-laying or winding using fibre-reinforced thermoplastic tapes has advanced significantly over recent years. This case study part shows that it is now possible to wind engineering structures with inconstant diameters. One of the advantages of using thermoplastics is that such a part can then be post-formed to create more complex shapes such as components with a 90° angle. The use of fibre reinforced thermoplastic tapes provide outstanding mechanical performance, a clean manufacturing process, low waste and a recyclable product.

Tape Manufacture
Coventive has developed a process method for manufacturing a variety of fibre reinforced thermoplastic tapes for use with Automated Fibre Placement technology. Our process can be easily adapted to allow for a range of different fibre reinforcements and polymer matrices to be manufactured. Bespoke tapes can be made to fit the specific requirements for an application.

Can we help you with your Pilot-Scale Manufacturing & Prototyping requirements?
Our suite of pilot-scale manufacturing facilities are at your disposal - prepregging, compression moulding, resin transfer moulding, injection moulding, and many more.

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Future

More complex shapes can be reinforced, manufactured and subsequently formed using automated tape laying technology. Advancements in process speed and tape placement will further advance the take-up of the technology.