University of BRISTOL

Bristol Composites Institute

A Virtual Platform For Porosity Prediction In Thermoplastic Composites

Speaker : Kaan Deniz

Supervisors : Jonathan Belnoue and Stephen Hallett

Industrial supervisors : Stephanie Miot and Karine Labastie (IRT St Exupery) and Attilio Chiappini (Airbus Atlantic)

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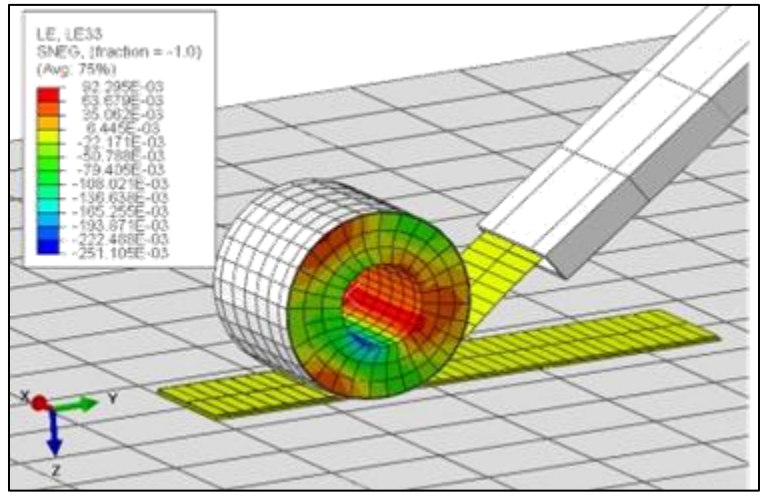
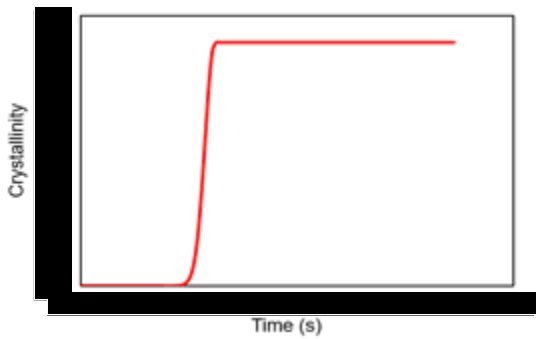
Automated deposition of thermoplastics

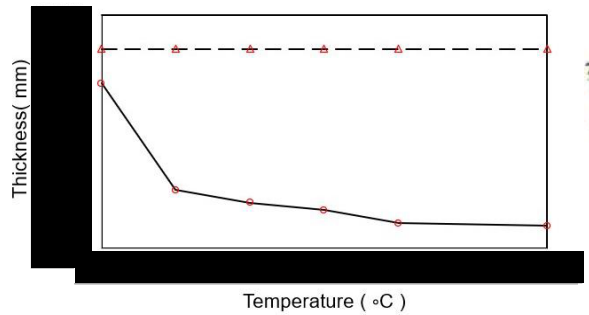
- Single step deposition process.
- **Cost reduction** and **increased part throughput**.
- TPs also have **recycling potential**.
- However, the method is prone to the creation of voids.
- Furthermore, achieving the right level of crystallinity is difficult.
- The project sets to develop a virtual AFP platform for TP deposition that will support **process optimisation**.

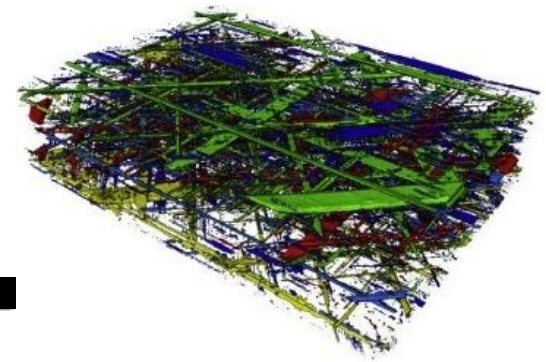
Input: Temperature, Deposition speed and Roller compaction force:



Output: Prediction of Crystallinity, Laminate thickness and void content.







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