




FIELDLAB THERMOPLASTIC COMPOSITES

Lightweight Automotive

Brightlands
Materials Center

TNO innovation
for life

provincie limburg 

Brightlands Materials Center is a Materials Research Organisation based on the Chemelot Campus in Geleen, The Netherlands. The Lightweight Automotive Program focusses on Hybrid Thermoplastic Composites in overmoulding and recycling. Together with a group of companies Brightlands Materials Center works on thermoplastic composites (TPC).

Major developments are:

1.

Material modelling techniques to optimize weight, and reduce cost and development time, with a focus on adhesion between dissimilar materials.

2.

Recycling technology to close the loop and reuse TPC scrap into long fiber thermoplastics (LFT), to be used in overmoulding processes. The Fieldlab Thermoplastic Composites started with support from the EU Interreg program. Here SME as well as multinationals work together to strengthen thermoplastic composites know-how, collaboration and infrastructure in The Netherlands.

Developments:

- Understanding of the adhesion fundamentals between injection molding material and TPC insert.
- Tool development for a quick change overmoulding tool.
- Closing the loop by recycling TPC scrap into (LFT) long fiber reinforced granules.
- Design guide for hybrid TPC in overmoulding and recycling.

Partners:



Contact Lightweight Automotive

Business Development

Ties van Maaren

Contact:

ties.vanmaaren@

brightlandsmc.com

Tel: +31 (0)6 21 23 48 41