

Opportunity for Bachelor/Master/Diploma Thesis

Thesis and/or SHK Position

Experimental Investigation of the Degradation of PET

Background PET is one of the main materials for the production of containers. Furthermore, PET bottles are well known for their high potential in circular production processes. The material can be collected cleanly and can be reprocessed. With a rising amount of rPET in the loop the question arises, how long the material can be reprocessed, before the degradation of the material can become an issue.

Task In this work virgin PET material should be compared with rPET that is multiple times reprocessed. Here an evaluation of the current publications in this field has to be done, as well as the conduction of experimental analysis and its interpretation.

- Evaluation of the state of knowledge
- Planning and execution of the PET/rPET processing
- Scientific data evaluation

Within the project you get the opportunity to **strengthen your skills** in

- Statistical methods - DoE (Design of Experiments)
- Plastic processing and recycling
- Data processing in Python
- Communication of engineering results in German, English and optional also in French language



For further information, please get in contact with

Julius Petrusch

Email: petrusch@ipfdd.de Tel.: 0351/4658 1966

Leibniz-Institut für Polymerforschung Dresden e. V., Hohe Str. 6, 01069 Dresden
Department of Materials Engineering

The scope of the topic can be adapted to the respective time budget (Thesis/Internship/SHK).