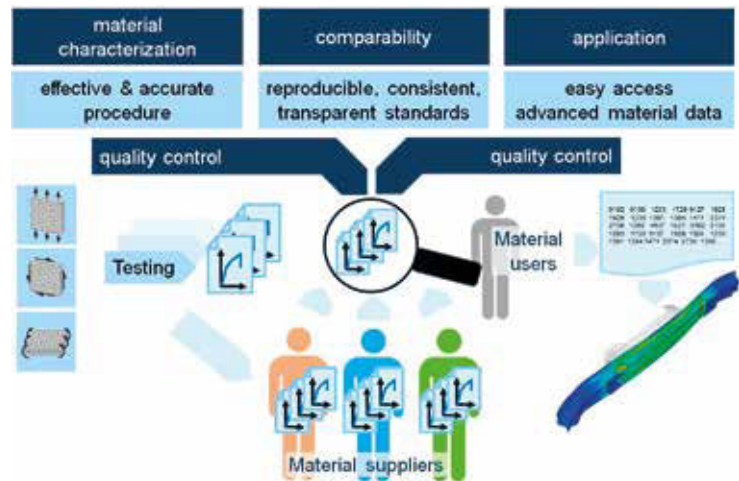


Expert task force advances standardization for automotive components' material

Active companies commit experts to contribute to the task force “Continuous Fiber Reinforced Thermoplastics in the Automotive Industry” formed in 2015. Together they are pushing a transparent and effective standard qualification plan for continuous fiber reinforced thermoplastics.

Material properties of continuous fiber reinforced thermoplastics are identified by experimental investigations often based on standards. Those standards are valid for different materials and often leave some room for interpretation in details. Sometimes several varying standards exist. For many conditions no national/international standards can be found or standards are not suitable because they were originally developed for e.g. thermoset materials.



Key Points

Against this background the task force's main goal is a transparent and effective standard qualification plan for continuous fiber reinforced thermoplastics (tapes and organic sheets). The focus within this qualification plan is on the four key points material characterization, comparability, application and quality control. The support of material users with more detailed and meaningful data for simulation will also be very important.

This expert task force was initiated under the umbrella of AVK by the following companies: Arkema, BASF, Covestro, Dupont, Evonik, Lanxess/Bond Laminates, Sabic, Tencate. IVW was selected by these companies to lead the task force, assemble the scientific questions and find solutions for a transparent and effective standardization. The results are discussed very closely with an OEM committee (BMW, Daimler, Ford, Opel, VW).

Progress

Since the founding of this expert task force one year ago the national and international state of standardization and different standardization plans were collected. A system of material properties and parameters was established and sorted in order of priority. Currently the team works on efficient and

Task force objectives

robust characterization techniques for material parameters of the highest priority. The results are presented and discussed at conferences (e.g. AVK, CCeV).

Further information:

Dr.-Ing. Sebastian Schmeer,

Dr.-Ing. David Scheliga,

Institut für Verbundwerkstoffe (IVW) GmbH,

Kaiserslautern,

phone +49 (0) 631 / 20 17-322,

sebastian.schmeer@ivw.uni-kl.de,

www.ivw.uni-kl.de



Members of expert task force