



Press Release Techtexil 2017

Cetex Institute: Lightweight structures for large-scale production

The Cetex Institute for Textile and Processing machines presents the Techtexil 2017 new process approaches and material developments for the large-scale production of continuous fiber-reinforced lightweight structures.

The focus of the institute's presentation is on two projects for the Open Hybrid LabFactory e.V. at Wolfsburg: KonText and KadiText. In addition, the ZIM cooperation network "FÜKOMP_hybrid" presents itself.

Within the context of the project "**KonText** - Continuous load path optimised textile technologies for large-scale production of lightweight structures", a new process and machine technology for the production of novel load path optimized textile reinforcing structures is being developed in cooperation with the manufacturer Karl Mayer Technische Textilien GmbH and other partners. A multiple warp yarn shog movement module is intended to allow the load-bearing carbon fibers to be applied to the multiaxial basic product. The cost-intensive reinforcing fibers are only used in the highly stressed areas of the components - according to the load path and without waste. The carbon fibers are connected to the basic product by means of stitch bonding technology.

The KadiText system was developed by the institute together with ERMAFA Sondermaschinen- und Anlagenbau GmbH. The modular machine system supplies a calendar impregnation system of the ERMAFA with textile web materials made of fiber and thermoplastic matrix materials with a maximum product width of 350 mm, from which, in the connected impregnation process, semifinished products are produced for technological processes such as pressing, injection molding and thermoforming.

Up to 3 different fiber materials, such as carbon, glass, basalt or natural fibers, can be processed in a wide variety of textile structures (non-crimp fabrics, knitted fabrics, woven fabrics, etc.). The matrix material can be fed as a powder or film.

The ZIM cooperation network FÜKOMP_hybrid is a network of 20 companies and three research institutes that jointly develop and market innovative joining technologies for hybrid material systems in large-scale production. The network is funded under the "Central Innovation Program for SMEs" program of the BMWi. The Cetex Institute acts as a management organisation for the network. Currently, 23 strategically coordinated research and development projects are the core of the activities.

The Cetex Institute, together with the institutes IST and IFK of the Chemnitz University of Technology, will be exhibiting in **hall 3.1 at booth H42/H44**.

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