

PRESS RELEASE

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Functionalized technical textiles

Functionalized technical textiles enable the industry to open up and develop completely new product groups. At the BAU trade fair in Munich from 14th to 19th January, researchers from the Fraunhofer WKI will be presenting multi-layer fabrics with integrated conductive material and connected LEDs.

Technical textiles are characterized by diversity, compatibility, functionality, flexibility and interactivity. The Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut, WKI is carrying out research into the direct integration of the function in multi-layer fabrics in order to realize new functional components. New hereby is the combination of natural fibers and conventional reinforcing fibers, as well as the direct integration of the function in the multi-layer fabric.

At the Fraunhofer WKI Application Center for Wood Fiber Research HOFZET®, application-oriented development enables the possibility of producing innovative, differing types of fabrics (filler, multi-layer and spacer fabrics) with different material combinations. Conductive yarns or wires, which serve as sensors or conductive paths, are integrated directly into the fabric. The advantages lie not only in the functionalization of components but also in the saving of space and costs as a result of the integration. In conjunction with possible weight reductions, these textiles will then be of interest to the building industry as well as for lightweight construction in automotive, aeronautic, rail and shipping traffic.

At the BAU 2019, the Fraunhofer WKI will be presenting a multi-layer fabric with integrated conductive material and connected LEDs. Instead of the connection of a lighting function, other options, such as integrated sensor technology as a surveillance function for a building or as a protective function for the occupants, are also possible in order to fulfill increasing architectural and technical demands. Functionality, long-lasting durability and low weight are the fundamental arguments for textile solutions in this field of application.

The multi-layer fabric will be on display on the Fraunhofer joint stand in Hall C2, Stand 528 at the BAU trade fair in Munich from 14th to 19th January 2019.

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