

Press Release:

Ismaning, November 6th, 2017

PERFORMANCE DAYS ® functional fabrics fair
produced by Design & Development GmbH Textile Consult
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Textile heating elements are the talk of future fabrics - PERFORMANCE DAYS helps manufacturers and distributors put it in perspective

Smart Textiles - Opportunities and Challenges

PERFORMANCE DAYS, the pioneer in matters of trends in the textile industry, presents the “hot” topic of thermal technologies at the PERFORMANCE FORUM during the next edition of the popular trade fair. Special attention is given to the fabrics equipped with heating elements. They promise great potential for new business segments, while also presenting manufacturers with several challenges. The opportunities and risks are the subject of a lecture by attorney Dr. Alexander Duisberg of Bird&Bird LLP.

In the age of apps and smartphones, where modern technologies make our lives easier and we have the ability to control our household appliances from remote distances, the development of apparel, which can take on intelligent functions, is long overdue. In particular, great innovation has taken place recently in the field of active heating systems. New technologies not only provide body heat retention, but also generate additional heat by means of chemical or physical processes. The current focus in the manufacture of warming textiles is on electrical heat through resistance. The PERFORMANCE DAYS in November highlights three different and interesting approaches.

Lenzing: Warming soft knits with natural fibres

Fibre manufacturer Lenzing (Tencel) has developed an innovative 3D knitting process in cooperation with the KnitWarm Company, which produces a particularly soft, skin-friendly fabric with the Tencel conductive yarns. The conductive yarns heat up when connected to an electrical source. Small pushbutton controls close the circuit and connect the cable with the fabric. The heat intensity can be adjusted between three settings by means of these controls. The system is powered by a rechargeable external electrical source (5V/2A). The fabric is washable and the conductive yarns are not subject to corrosion, but all power supplying cables must be removed prior to washing. The conductive fabric can be applied over the entire surface or sewn on as panels to cover specific areas.

Schoeller: Warm Softshell “by the meter”

Schoeller Textiles is going a step further with its latest E-Soft-Shell. This softshell material is coated with conductive yarn, and can even be custom-cut and supplied by the meter without losing any of its thermal functions. This makes the fabric interesting for all types of commercial applications, with savings on material in production. Schoeller is currently working on woven and knitted fabrics with conductive materials or components, along with sensors in or on the surface of the textiles, both as stretch or

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non-stretch variants. In addition to its thermal physical components, the new E-Soft-Shell is equipped with Schoeller's highly functional Corkshell Technology. The material can be dyed and washed. The special thermal backing was developed by Schoeller-subsiary, Eschler. The heatable yarns can be applied to specified areas of the fabric or uniformly distributed. All that is needed is a connection to a low voltage power source.

Flying Textile: Smart control for exact heat

Flying Textile's iWarm3.0 is incredibly interactive. In contrast to other systems, the iWarm3.0 has sensors that constantly monitor the inner temperature of apparel and then independently regulate the heating function so that a uniform temperature is attained. For this purpose, the system is controlled via an external app. The user simply enters the desired temperature in the "system controls", i.e. the smartphone with the app, which then communicates via Bluetooth with the sensors and textile's heating elements. This allows for constant heat within a range of 38 to 53°C. Heat is generated by carbon nanotubes embedded in a membrane. Lightweight, thin, soft, and washable, these panels can be processed with any type of textile and powered by an external power source (maximal 5 V and 7.5 W). The manufacturer guarantees up to 20 washes without any loss of function (cables and controllers have to be removed). The desired warmth is provided in just 10 seconds.

With so many exciting developments, it is surely only a matter of time before smart apparel can monitor our physical functions on an even broader scale, and more individual solutions for our well-being and performance enhancement are surely on the way.

Important topic: Product liability

Clearly, the effort to develop such heatable textiles faces great technical challenges. However, there are also many points to be considered from a legal point of view as far as smart textiles are concerned. The issues facing manufacturers and distributors in the area of product liability are the subject of the lecture "Smart Textiles - A New World of Data" presented by attorney Alexander Duisberg, a partner at Bird&Bird LLP, on Thursday, November 9th at 3:45h at PERFORMANCE DAYS. Besides considering the possibilities of damage to the textile or injury to the wearer from the heat and power source, to the extent mobile devices communicate with the textiles there is also a need to deal with the subject of data privacy. An exciting new world promises a huge market potential if the manufacturers and distributors keep track of all the parameters.

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As always, the complete presentation program, the workshops, and the guided tours as well as admission to PERFORMANCE DAYS are free of charge. More detailed info and registration forms are provided at: www.performancedays.com

About PERFORMANCE DAYS

PERFORMANCE DAYS – The “functional fabric fair” launched in 2008, is the first and only event created especially for functional fabrics for sports and work clothing. The aim of the semi-annual trade fair is to give leading and innovative textile manufacturers, suppliers and service providers the opportunity to present their functional fabrics, membranes plus treatments, laminates, paddings, finishes, and accessories such as yarns, tapes, prints, buttons and zippers.

The industry experts who come to this fair - the sports fashion designers, product managers, and decision-makers (see online: [Visitor List](#)) represent almost every European active clothing and functional wear manufacturer - can find a complete selection of high quality materials available at just the right time in April/May and November. The dates are intentionally scheduled early thanks to our expertise in functional fabrics and are optimal for summer and winter sport collections. (All trade fair catalogs from past events are available online at [Catalogs](#) as well as a listing of current exhibitors at [Exhibitor List](#)).

The relaxed and focused workshop-like atmosphere at PERFORMANCE DAYS differentiates it from the other fairs which are often unmanageable and more stressful. That is one of the reasons why the Munich trade fair at the heart of the European sportswear industry has become one of the top addresses for new fabrics, innovations, and is the preferred meeting place to conduct business.

In the unique [PERFORMANCE FORUM](#) of PERFORMANCE DAYS, the visitor receives an inspiring and well-grounded overview of the new materials, trends, and innovations of the exhibitors. The PERFORMANCE AWARD and the ECO PERFORMANCE AWARD are also presented here.

Qualified guest speakers present special topics and their collaborative ventures to complete the range of information provided at PERFORMANCE DAYS within the [Program](#) (see after the fair online in the [Presentation Library](#)).

No entry fee and free admission to all events for industry visitors.

Detailed information and advanced registration online at: www.performancedays.com