

ADVERTISING FEATURE: FORMOSA TAFFETA

Formosa Taffeta Co., Ltd (FTC) is launching the first thermal control clothing which combines electronic technology, functional clothing and smart clothing. This is new thermal clothing that provides comfort, smart technology, and app-controlled thermal function.

Formosa Taffeta launches thermal control technology

Since 1950, the textile industry in Taiwan has gone through three major evolutions, moving from printing and dyeing skills for natural fiber, to synthetic fiber, then to functional textiles. Each time these changes transformed and greatly benefited the industry. However, the development of functional textiles has already matured and become a fiercely competitive market. To overcome this predicament and further renovate the industry, we need more

than the advancement of material. The collaboration between different fields and cross industries is vital.

Among the developments in smart clothing in textiles, the combination of cloud transmission and an active/passive sensor has become a new trend. Driven by the idea of upgrading outdoor wear, FTC is launching smart thermal clothing which focuses on hiking, outdoor and leisure activities. FTC aims to provide app-controlled thermal protection for activity in cold weather

FTC is the first textile manufacturer to take advantage of Intexar Heat technology as part of its Permawarm line.

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Permawarm delivers clothing brands a complete garment heater system including the Intexar heater, connectors and control software.

Formosa Taffeta Co., Ltd.

that allows the consumer to have more control over thermal function and to be able to adjust their garment temperature based on individual preference. It's a more comprehensively comfortable version of "smart" clothing for this tech generation.

FTC has developed a smart thermal technology which installs a heating module on the fabric, using textile cables connected to a Bluetooth activated controller and a power bank. Then through a phone APP, the wearer can adjust the temperature. The highest temperature is 50°C. The range of operating temperature is +0.5 to -2°C. For example, if the set temperature is 45°C, the unit will automatically stop heating once the temperature reaches 45.5°C. Likewise, when the temperature drops to 43°C, the module would automatically start heating. If a phone is unable to function, the garment would maintain the temperature which was previously set at the time of the malfunction.

"FTC's launch of this smart thermal technology utilizes advanced electronic printing techniques which are the result of 2 years' collaboration with Dupont." James Lee, the president of FTC said. "We expect this new technology to bring momentum that would drive this industry into the next evolution." The core technology of this smart clothing includes the heating module, textiles flat cables, controller and user UI. Among the components, the most important is the unique type of membrane made by FTC and the conductive circles from Intexar of Dupont.

Compared to other thermal clothing in the

market, FTC 's smart thermal clothing is equipped with additional advantages, such as more even heating, machine washability and high safety. The key heating module is wrapped entirely in the package material and fabric, therefore there is no problem of metallic material contacting the skin, a common problem on thermal products made with metallic fiber. This can avoid the potential problems of allergy or electric shock. Overall, this new development of smart thermal technology can help achieve a balance of comfort and safety, and additionally provides freedom of clothing design and humanized user experience.

This cross-field innovative smart heating clothing technology has already passed all internal testing, including our physiological laboratory and Infrared thermographer. Additionally, FTC had also completed the preparation of an automated production line which enables this technology to become a mass-producible product. FTC is going to officially launch this smart technology product at 2018 ISPO, at which this new technology is expected to ignite the interest of the major brands around the world.



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