

PRESS RELEASE

App offers secure monitoring of temperature-sensitive drugs

August Faller and Avery Dennison cooperate to bring intelligent label for temperature monitoring to market

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June 2017, Waldkirch. Drugs such as vaccines or antibodies are sensitive products. Storage temperatures that are too high or too low can affect their quality and efficacy. With the new temperature logger TT Sensor Plus™ 2, the August Faller Group, in cooperation with Avery Dennison, offers an intelligent label which ensures that drugs can be monitored over 3 years with more than 150,000 temperature measurements stored and which is also considerably more compact than ordinary solutions. Using an app makes it easy to provide complete temperature monitoring of medication required to be maintained at low temperatures or during the entire cold chain. At the push of a button, an LED indicator on the label indicates whether the cold chain has been maintained and the product can continue to be used.

Many medicines are only effective if stored at low temperatures. According to estimates by the *German Institute for Drug Use Evaluation e.V. (DAPI)*, 25-30 million drugs subject to mandatory cold storage are dispensed annually in pharmacies in Germany alone. Most of these pharmaceutical products must be stored between 2-8° Celsius. Temperature-sensitive medications must also not fall below or exceed these temperatures during transportation.

In cooperation with Avery Dennison, Faller offers the new monitoring label TT Sensor Plus™ 2 and integrates it into individual packaging solutions such as folding cartons or in shipping boxes for customers.

Setting and handling via app

The label records the temperatures to which a product is exposed throughout the entire value chain. The data is stored on an NFC chip. By connecting to a digital IT system and an appropriate app, the data can be read from any PC or smartphone at any time, regardless of its location.

With the desktop application TTScan, users can set the time intervals and the temperature range for which the label is tasked with measuring and recording the ambient temperature. This facilitates rapid access to all relevant information over the entire value chain for the parties involved, from the transport company employee to the doctor or pharmacist, thus ensuring the highest level of protection for temperature-sensitive pharmaceutical products. The comprehensive IT service package includes the online applications TTApp and TNet, which make it possible to activate and read the TT Sensor Plus™ 2 label as well as store all relevant data in the cloud (TNet).

With the help of an integrated battery, the label can check and record more than 150,000 ambient temperature measurements around a product for a period of up to 3 years. With just one click, the label indicates whether the cooling chain has been interrupted. A green LED indicates that the product has been correctly handled. If -on the other hand- the temperature was too low or too high during transport or storage, a red LED will light up.

The label differs from previous solutions in terms of its compactness: the temperature logger is less than half the size of a credit card and measures just 68 x 26 x 3.5 mm. As a result, the label is also suitable for temperature monitoring of small, individual packs. To date, a cost factor for intelligent labels has been the minimal return rate. Avery Dennison has consequently designed the new label to be a competitive alternative for single and multiple use.

"By working with Avery Dennison, we are the first packaging supplier in Germany to offer pharmaceutical manufacturers an intelligent temperature logger of this type," stresses Tanja Feldmüller, Head of Marketing &

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Innovation at August Faller. "At the same time, we are pleased to further strengthen the longstanding successful partnership between Faller and Avery Dennison."

Length of text: approx. 4.000 characters (with blank spaces) / approx. 380 words

Further information available at: www.august-faller.com/ttsensorplus/en

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Picture overview:

All photos: August Faller GmbH & Co. KG

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The TT Sensor Plus™ 2 label ensures optimal transport protection for temperature-sensitive pharmaceutical products such as protein hormones or vaccines. At the same time, it offers e.g. pharmacies safety when storing these products.

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About August Faller Group:

The August Faller Group is one of the leading manufacturers and solution provider of secondary pharmaceutical packaging such as folding cartons, leaflets, labels and combination products. For already 25 years, August Faller has continuously expanded its expertise in the pharmaceutical market. On this basis, innovation and development are consistently focused on customer-specific solutions and patient-friendly products.

The company is one of the first manufacturers to provide product development tailored to the individual customer as a separate service. In terms of pharmaceutical and health care packaging, Faller offers solutions such as serialisation, supply chain management and packaging services.

The services of the subsidiary August Faller Artwork Solutions GmbH are available to customers for artwork management, printing consulting and coordination.

The company group operates in an economical and ecologically sustainable manner and August Faller GmbH & Co.KG has been FSC®- certified since 2011. August Faller GmbH & Co.KG was founded in 1882. At its headquarters in Waldkirch, Germany, and at its other German sites in Binzen, Großbeeren and Schopfheim, as well as in Hvidovre, Denmark, and Łódź, Poland, the company currently has around 1,180 employees.

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