

Press Release

Freudenberg acquires technology from innovative startup

Expansion of technology portfolio with hard particle coating of nonwovens to enhance the friction coefficient

Weinheim, Germany, October 14, 2019. The Freudenberg global technology group has acquired the activities of the startup FRICTins GmbH from Wolnzach, Germany – including FRICTins’ innovative technology to increase the friction coefficient. This allows lightweight and more compact component designs as well as the transmission of up to 5-times higher torque and shear forces. These features are of critical relevance in e-mobility applications and increasing performance requirements for part connections.

“In the future, Freudenberg will offer the global automotive industry a cost-efficient, hard particle coated nonwoven solution – ideally suited for the realization of new powertrain designs and lightweight concepts”, stated Dr. Frank Heislitz, CEO of Freudenberg Performance Materials.

This technology combines a unique hard particle coating process with a special nonwoven from Freudenberg. It is utilized by automotive manufacturers and suppliers in engine, chassis and powertrain applications. It can increase the friction coefficient up to a factor of 8. This allows for a significant improvement in the performance of screw joints and press fits. Increasing the friction coefficient here enables many new and innovative material combinations.

Currently, the products are manufactured on a pilot production scale in a facility near Munich (Wolnzach). Freudenberg has acquired all the assets and will set up industrial scale production within the next few months.

Background

The patent-pending solution uses a multi-step-process to coat hard particles of various dimensions onto the surface of a special nonwoven. When used in a friction joint, the hard particles penetrate into both parts of the

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joining components and create a micro interlock. Compared to existing technologies on the market, FRICTins' technology offers greater flexibility in the design process, thanks to lower material thickness, while also providing a much higher friction coefficient. By using 100% inert materials, this new technology does not cause any corrosion between the joining parts.

The FRICTins technology has already won two awards:

The German Innovation Award from the German Design Council in 2018.

The Materialica Design and Technology Award in 2017.

About the Freudenberg Group

Freudenberg is a global technology group that strengthens its customers and society long-term through forward-looking innovations. Together with its partners, customers and research institutions, the Freudenberg Group develops leading-edge technologies and excellent products and services for about 40 markets and for numerous applications: seals, vibration control components, technical textiles, filters, specialty chemicals, medical products and the most modern cleaning products.

Strength of innovation, strong customer orientation, diversity, and team spirit are the cornerstones of the Group. The 170-year-old company holds strong to its core values: a commitment to excellence, reliability and pro-active, responsible action.

In 2018, the Freudenberg Group employed more than 49,000 people in some 60 countries worldwide and generated sales of more than €9.4 billion. For more information, please visit www.freudenberg.com

About Freudenberg Performance Materials

Freudenberg Performance Materials is a global manufacturer of innovative technical textiles offering differentiated value propositions to a broad range of applications such as apparel, automotive, building materials, energy, filter media, healthcare, hygiene, building interiors, shoe and leather goods as well as specialties. In 2018, the company generated sales of more than €920 million and had 23 manufacturing sites in 13 countries and more than 3,600 associates. Freudenberg Performance Materials attaches great importance to social and ecological responsibility. For more information, please visit www.freudenberg-pm.com