

# Press release

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## **German innovation: P. Glatzeder GmbH revolutionizes filtration technology with NanoMelt technology**

**Detmold, Germany** – P. Glatzeder GmbH, a renowned company in the field of technical textiles and nonwovens, announces a breakthrough in the production of meltblown nonwovens made of polypropylene (PP) with a focus on nanofibers.

P. Glatzeder GmbH has become a leader in the manufacture of filtration materials through continuous research, innovation and the constant improvement of its production processes. A key aspect of these efforts is the development and perfection of the unique NanoMelt technology, a process that makes it possible to produce meltblown nonwovens with nanofibers averaging 600 nm in thickness. This is a significant advance in filtration technology, as it enables significantly more efficient filtration compared to conventional meltblown fibers.

This innovative addition to the portfolio marks a significant milestone in the company's history and underlines its commitment to investing in future-oriented technologies.

The range includes both standard PP meltblown with a basis weight of 17 - 150 g/m<sup>2</sup> and nanofiber PP meltblown with a basis weight of 17 - 50 g/m<sup>2</sup>. Meltblown nonwovens are widely used in various filtration applications, including air and liquid filtration. The most important applications include respiratory protection, water filtration, fuel filters, vacuum cleaner bags and cabin filters.

With the production of the PP meltblown nanofiber, the company is also closing a gap to further production cycles. The PP nanofiber nonwoven produced in Detmold can be extruded directly on site in further processing steps, or can be coated onto a wide variety

of carrier materials (e.g. spunbond, staple fiber nonwovens, knitted fabrics). Ultrasonic calendering up to a working width of 160 cm and up to 4 layers as well as thermal and mechanical calendering up to 260°C and 20 - 290 N are also possible at P. Glatzeder GmbH.

"By using meltblown production of PP nanofibers, we are creating completely new advantages over conventional methods such as glass fiber nonwovens and electrospinning," says Kristin Glatzeder, Managing Director of P. Glatzeder GmbH. "In this way, we are making a significant contribution to ecological efficiency, both in the production phase and in the use of the end product. It also eliminates unnecessary transportation for further processing because we can process the PP nonwoven directly on site. Our enthusiasm for this technological revolution is great, given the fact that there is currently no similar product on the market."

### **Advantages of nanofiber meltblown production from polypropylene**

**Affordable raw materials & lower production costs:** The use of PP for the production of nanofiber meltblown nonwovens is characterized by cost efficiency due to favorable raw material prices and reduced production costs. PP is less expensive than other materials such as glass fibers or specialty plastics used in filtration media, enabling the provision of high quality filter media at competitive prices, to the benefit of customers and end users. In addition, the less complex meltblown technology reduces manufacturing costs compared to processes such as electrospinning, which promotes more efficient and resource-saving production.

**Reduced waste & environmental impact:** The PP nanofibre meltblown technology used by P. Glatzeder GmbH offers significant environmental benefits by minimizing the amount of production waste and environmentally harmful emissions. This efficient production process not only contributes to cost savings, but also meets the need for more sustainable production methods as it produces less waste and needs to be recycled compared to conventional manufacturing processes. This reduces the environmental impact, without having to forego the proven properties of plastics.

**High resistance:** The PP nanofiber meltblown technology is characterized not only by its ecological advantages, but also by the outstanding durability of the PP nanofibers. These are extremely resistant to moisture, dirt and wear, which makes them ideal for use in demanding environments where the longevity and reliability of the filter media are crucial. Their robustness extends the service life of the filters and reduces the need for frequent replacements. In addition, PP is irreplaceable in aggressive media due to its high chemical resistance and offers higher mechanical strength than glass fibers and materials produced by electrospinning. This combination of advantages underlines why PP nanofiber meltblown nonwovens are a preferred choice for sustainable and efficient filter media.

"Another significant positive effect can be seen in the area of work safety and employee health. The processing of our PP nano-meltblown material is completely safe in terms of skin contact compared to alternatives such as glass fiber nonwovens. While the use of protective suits is required when handling glass fiber nonwovens to prevent the fine particles from coming into contact with the skin, this need for protection is unnecessary with our material as it does not cause any skin irritation," Glatzeder states. "In addition to all the advantages mentioned, this is an important aspect; not only for the manufacturers of filter media, but also for the end user."

### **About P. Glatzeder GmbH**

With two locations in Germany, P. Glatzeder GmbH has specialized in the manufacture and sales of nonwovens and technical textiles for over 50 years. Numerous manufacturers and suppliers from various industries rely on the company's high-quality services. In addition to the in-house production of nanofiber meltblown nonwovens, the comprehensive range of services includes rewinding and slitting, hot and cold calendering, ultrasonic laminating and printing using flexographic and screen printing processes. All products are adapted to individual customer requirements and shipped worldwide.

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