

**Press Release**

## Highly Efficient Production of Stable Polyester Nonwovens

Neumünster, Milan 12-19 November, 2015 - For ITMA 2015 from 12-19 November in Milan, Oerlikon Neumag is paying particular attention to the efficient production of spunbonds for technical applications. The plant manufacturer from Neumünster is presenting new developments for this purpose: in this way, the new generation of spunbond systems is reducing energy consumption by 20 to 30 per cent. Visitors to the trade fair gain an insight in the virtual reality showroom on stand A105 in hall 4.

Today, almost 50 per cent of all nonwoven fabrics are already produced directly from polymer chips – and this proportion is growing. It is true that today the majority is used in hygienic, medical and wipe products. But spunbond and meltblown are on the rise in technical applications and are more and more frequently replacing carded nonwovens thanks to their technical and economic advantages. In home construction, their share is already over 80 per cent, for filter nonwovens over 50 per cent. Also, Geotextile applications are coming.

Polyester is therefore becoming increasingly significant as a raw material for technical spunbond. One reason is that the world market price for the basic material polypropylene, which was used frequently before, is now consistently higher than the price for PET. A second reason is that sustainability, thermal protection, energy consumption and insulation are playing an increasing role for important users such as the construction industry. Polyester nonwovens often satisfy the corresponding requirements with the lowest use of material and without additives. They protect against cooling, only absorb minimum moisture, can be easily used as insulating material, are good for insulation and recyclable, and thus present an alternative to plastic foams, glass wool or mineral wool.

### Five per cent raw material saving

For such technical applications, the web strength is very important. The filaments need to have a very high tensile strength and often also allow a high elongation. These properties must be achieved with the lowest possible web-weight and optimized raw material usage, since the cost of raw material for spunbond production amounts to around 75 to 85 per cent of production costs. Benchmark comparisons with current products in Europe showed that with the spunbond technology of Oerlikon Neumag, it was possible to achieve higher web strengths at a comparable web-weight. Conversely, required stabilities can also be achieved with reduced web-weights: the comparisons show a raw material saving of over five per cent.

## **30 per cent less energy consumption**

Low operating costs play an important role in the decision to invest in a modern spunbond system. This is why Oerlikon Neumag has undertaken extensive optimizations, particularly to reduce energy consumption, the second-largest proportion of operating costs. In this way, the new generation of spunbond systems saves almost 20 per cent of the energy requirement in the spinning section compared to former versions. This optimization can make a difference of 30 per cent compared to classic PET spunbond processes. According to company information, in the same comparison it was possible to demonstrate that the conversion costs were also around 20 to 30 per cent lower.

“By focusing on technical applications for our spunbond technology, we have developed comprehensive know-how for entire processes along with the necessary inline processing. Today, we can therefore offer our customers product solutions for many applications meeting their requirements,” says Martin Rademacher, Sales Director Oerlikon Neumag. These include geotextiles, bitumen roofing substrates and roofing underlayment as well as technical products such as carpet backings or filter media. The now considerably extended technical application center in Neumünster is available for demonstrations and customer trials as well as for further development of products and processes.

608 words

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### **About Oerlikon**

Oerlikon (SIX: OERL) is a leading, globally-active technology group supplying growth markets with market-leading technologies and services for surface solutions, systems for manufacturing manmade fibers, transmission systems and drive solutions as well as prevacuum and high vacuum technologies and pumps and the corresponding accessories. The leading Oerlikon technologies enable customers to increase their product performance and productivity, utilize resources and energy more efficiently and make a contribution towards sustainable development. As a Swiss company with a history stretching back more than 100 years, Oerlikon and its in excess of 15,500 employees are present at more than 200 sites in 36 different countries. In 2014, sales totaled CHF 3.2 billion. The company, which invested CHF 121 million in research and development in 2014, employs more than 1,300 specialists for developing innovative and customer-oriented products and services.

For further information: [www.oerlikon.com](http://www.oerlikon.com)

### **About the Oerlikon Manmade Fibers segment**

With its Oerlikon Barmag and Oerlikon Neumag brands, Oerlikon Manmade Fibers segment is the world market leader for manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and artificial turf systems and – as a service provider – offers engineering solutions for the entire textile value added chain. As a future oriented company, the research and development at this division of the Oerlikon Group is driven by energy-efficiency and sustainable technologies. With the expansion of the product range to include polycondensation systems and their key



components, the company now caters to the entire process – from the monomer all the way through to the textured yarn. The primary Oerlikon Barmag markets are in Asia, and – for Oerlikon Neumag – in the USA, Turkey and China. Correspondingly, Oerlikon Barmag and Oerlikon Neumag – with just under 2,500 employees – has a worldwide presence in 120 countries as part of the Oerlikon Manmade Fibers network of production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster and Chemnitz, highly-qualified engineers and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: [www.oerlikon.com/manmade-fibers](http://www.oerlikon.com/manmade-fibers)