

Oerlikon Polymer Processing Solutions at the Domotex Middle East in Dubai

Sustainable machine and plant technologies for the carpet industry in the Middle East

Neumünster, Remscheid, March 21, 2024 - DOMOTEX Middle East is the leading event for the carpet and flooring industry in the Middle East. It focuses on machine-made carpets, textile carpets and handmade carpets. Oerlikon's Polymer Processing Solutions division and its joint venture partner BB Engineering will also be on hand to provide information about their sustainable machines and plant technologies at the ATAG Export & Import stand E10.

The company will be presenting trade fair visitors with complete solutions ranging from melt to yarn, fibers and nonwovens. "Our customers are showing great interest in factory projects that cover everything from our in-house polycondensation plant or extrusion to textured yarn and the corresponding digital solutions. This holistic approach enables us to supply all process steps from a single source and to guarantee coordinated technology that ensures the high quality of the yarn produced," explains Sales Director Jilali Lakraa.

New bicomponent BCF yarn for the carpet market

Quality, efficiency and performance - with its latest development in bicomponent yarns for carpet production, Oerlikon Neumag meets the carpet market's demand for new innovative BCF yarns. "The new BICO BCF yarn is characterized by a richer and higher volume while significantly reducing raw material consumption in carpet production," explains Jilali Lakraa. At the exhibition stand, interested visitors will be able to see sample yarns and carpets, find out about the product range and have in-depth discussions with the experts about the advantages of BICO-BCF yarn in various applications.

WINGS HD and eAFK Big V: Efficient production of high-titer products in the POY and DTY process

Oerlikon's knowledge of all relevant technologies in manmade fiber spinning makes it the only manufacturer in the world to offer a comprehensive range of services for the production of carpet yarns. The plant concept based on a POY and texturing process is designed for a carpet and home textile product range that requires particularly soft and fluffy polyester yarns with BCF-like properties. The aim here is to produce yarns with a maximum count of 1200den and over 1000 filaments. Typical products are, for example, a 1200den f1152 or 600den f1152 as well as 900den f864. The machine concept consists of the well-known WINGS HD POY winder and the eAFK Big V texturing machine.

If DTY yarns of up to 1200den with up to 1152 filaments are standardly plied from four POY bobbins 300d/288f on a DTY machine, the process has a fundamental disadvantage: half of the available winding positions of the texturing machine remain unused. Here, Oerlikon Barmag offers the yarn producer a highly efficient solution: the spinning concept with WINGS HD take-up unit in combination with an automatic eAFK Big V multi-spindle texturing machine is currently the only solution on the market that produces excellent quality high-titer yarns with maximum machine efficiency.

VarioFil® - flexible compact spinning system for countless applications

Whether carpets and upholstery fabrics, fashion and sports or seat belts and airbags - a wide range of products is no challenge for the VarioFil® system from BB Engineering. The compact turnkey system is

also ideal for producers who manufacture small batch sizes or specialized products. It is similarly flexible when processing different polymers, regardless of whether they are PET, PP, PA 6 and PA 6.6 or PBT. Customized conversion packages allow the system to be quickly adapted to constantly changing market requirements. In combination with Oerlikon texturing machines, a wide range of end products can be covered. This ranges from standard textile yarns to textured yarns with BCF-like properties.

Recycling is the future

Another rPET solution is the VacuFil® system from BB Engineering. VacuFil® is a unique and innovative PET recycling system that combines gentle large-scale filtration and targeted regulation of intrinsic viscosity (IV) for consistently excellent rPET melt quality. IV is the key quality feature in PET recycling and rPET processing. It determines the melting performance in the production process and the properties of the end products, such as BCF yarns, and is therefore essential for the recycling process.

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Caption 1:

The BCF S8 system offers high productivity and expands the product portfolio to a level that can hold its own in a constantly changing market.



Caption 2:

Part of Oerlikon Barmag's efficient solution for the production of excellent quality high-titer yarns: the eAFK Big V multi-spindle texturing machine.



Caption 3:

BB Engineering's VacuFil® system recycles post-consumer and post-production polyester waste.



About Oerlikon Polymer Processing Solutions Division

Oerlikon is a leading provider of comprehensive polymer processing plant solutions and high-precision flow control component equipment. The division provides polycondensation and extrusion lines, manmade fiber filament spinning solutions, texturing machines, BCF and staple fiber lines as well as nonwoven production systems. It also develops and produces advanced and innovative hot runner systems and multi-cavity solutions for the injection molding industry. Its hot runner solutions serve business sectors, including automotive, logistics, environmental, industrial applications, consumer goods, beauty and personal care and medical. Moreover, Oerlikon offers customized gear metering pumps for the textile, automotive, chemical, dyes and lacquers industries. Its engineering competence leads to sustainable and energy-efficient solutions for the entire polymer processing value chain with a circular economy approach.

Oerlikon Polymer Processing Solutions Division serves customers through its technology brands – Oerlikon Barmag, Oerlikon Neumag, Oerlikon Nonwoven and Oerlikon HRSflow – in around 120 countries with production, sales, distribution and service organizations.

The division is part of the publicly listed Oerlikon Group, headquartered in Switzerland, which has more than 12 600 employees and generated sales of CHF 2.7 billion in 2023.

For further information: www.oerlikon.com/polymer-processing

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