



Press Release

Sustainable textile industry

Recycling becomes a focus

Remscheid, September 24, 2020 — mountains of waste, plastic-infested oceans, negative CO₂ footprints — the need for more sustainable ways of living has never been more urgent. Consequently, it is logical that recycling solutions are becoming increasingly important within the textile industry. This was also tapped into at the first virtual Global Fiber Congress in Dornbirn with a session that focused specifically on the topic. In front of around 400 participants, Markus Reichwein, Head of Product Management at Oerlikon Barmag, also spoke about solutions currently on the market.

As the only manufacturer, the Oerlikon Group's Manmade Fibers segment offers the entire mechanical recycling chain — from preparing the recycled materials, producing the melt all the way through to the textured package. Here, the company utilizes the VacuFil solution supplied by its subsidiary Barmag Brückner Engineering (BBE) — which, with bottle-to-textile processes, is also able to process textile waste into chips. This permits the running of textile production operations very much in line with the zero-waste philosophy.

VacuFil ensures a stable process in the case of recycled quality yarns

The reliable removal of contaminants is vital for a stable and efficient spinning process and outstanding yarn quality. At the same time, stable operating conditions with minimal fluctuations are essential. The greatest challenge here is the differing qualities of the bottle flakes fed into the system, as the extrusion process is barely able to balance these fluctuations. Here, the VacuFil concept counters with blending silos, which reduce the differences in the viscosity of the polymers considerably and guarantee high yarn and fabric quality.

The VacuFil concept is installed upstream to an Oerlikon Barmag POY system, which transforms the recycled melt into filament yarn of the accustomed high quality. As texturing solutions, Oerlikon Barmag offers its state-of-the-art automatic eAFK-series systems, including the latest generation of the eAFK Evo, which was unveiled at the ITMA Barcelona last year. Yarn manufacturers wishing to continue texturing manually can use the eFK series.



With the VarioFil R+, producers of smaller batches now also have a compact system with an integrated recycled materials preparation unit at their disposal. The system offers a special extrusion system for bottle flake materials, the very latest metering and mixing technology for spin-dying and expanded 2-stage melt filtration. The four spinning positions are each equipped with an Oerlikon Barmag 10-end WINGS POY winder.

While mechanical recycling has already been extensively developed, chemical recycling for mixed fabrics is still presenting the textile industry with huge challenges. The Oerlikon Group's Manmade Fibers segment is currently working on solutions and concepts for transforming these fabrics into new textiles.

3007 characters including spaces





Caption: Turning old into new: using the VacuFil solution, Oerlikon Barmag filament systems can produce high-end yarn from both bottles and textile waste.

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About Oerlikon

Oerlikon (SIX: OERL) develops modern materials, systems and surface technologies and provides specialized services aimed at securing high-performance products and systems with long lifespans for customers. Supported by its technological core competencies and its strong financial footing, the corporation continues its medium-term growth plan by implementing three strategic factors: focusing on attractive growth markets, ensuring structural growth and expanding through targeted M&A activities. Oerlikon is a globally-leading technology and engineering corporation, operating its business in two segments (Surface Solutions and Manmade Fibers) and employing around 11,100 members of staff at 182 sites in 37 countries worldwide. In 2019, Oerlikon generated sales of CHF 2.6 billion and invested more than CHF 120 million in research & development.

For further information: www.oerlikon.com

About the Oerlikon Manmade Fibers segment

With its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, the Oerlikon Manmade Fibers segment is one of the leading providers of manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems and solutions for the production of nonwovens 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 (e-save). With its range of polycondensation and extrusion systems and their key components, the company caters to the entire manufacturing process — from the monomer all the way through to the textured yarn. The product portfolio is rounded off with automation and Industrie 4.0 solutions.

The primary markets for the product portfolio of Oerlikon Barmag are in Asia, especially in China, India and Turkey, and — for those of Oerlikon Neumag and Oerlikon Nonwoven — in the USA, Asia, Turkey and Europe. Worldwide, the segment — with just under 3,000 employees — has a presence in 120 countries with production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster (Germany) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: www.oerlikon.com/manmade-fiber