Staple Fiber Production – the Right Solution for Every Need

Neumünster, Milan 12-19 November, 2015 - Oerlikon Neumag is offering an extensive plant portfolio for the production of synthetic staple fibers. From 5 – 300 t per day; one-step or two-step technology; polypropylene, polyester, recycled polyester, polyamide and more; commodity or special applications – the Oerlikon Manmade Fibers segment is presenting the right solution for every need at ITMA 2015 in Milan (booth A105, hall 4).

Staple FORCE S 1000 – fibers on demand
The compact Staple FORCE S 1000 has been specifically designed for the economic production of staple fibers in small batch sizes of up to 15 tons per day. The plant not only impresses with its low initial investment and its compact construction. By replacing the conventional steam and water baths with a dry drawing process over godets, the energy costs are considerably reduced.

Inline systems with 1-step process for special applications
The inline technology includes the spinning operation and the subsequent drawing in one process step. With this compact construction it is possible to produce staple fiber capacities of up to 80 tons per day. The applications are as diverse as they are specific: from fibers for geotextiles, filtration applications or hygiene applications to reinforcement fibers through to fibers for automotive applications.

Because of the extruder spinning, the inline process is ideally suited to processing recycled polyester. Whether as regranulated chips or directly as rPET flakes (bottle flakes), even recycled polyester that does not 100% satisfy the qualities of virgin polyester can be processed.

Commodity or bicomponent fibers with two-step plants
A major competitive advantage of the 300 tons per day staple fiber plant for commodity fibers from Oerlikon Neumag is the considerably higher profitability per ton compared to smaller plants, which relies heavily on the energy efficiency of the new large-scale plant.

Oerlikon Neumag technology offers a further advantage with the possibility of coloring fibers directly in the spinning process. Because the large plants are always connected to a polycondensation plant, fibers cannot be colored until processing. With side stream extrusion, however, the master batch can be mixed directly into the spinning process. This means, for example, that black fibers can be produced directly. Later coloring is no longer necessary.

Yet it is not only commodity fibers that are produced in the two-step process but bicomponent fibers, too. Here, Oerlikon Neumag offers solutions for self-crimping fibers, binding fibers, super microfibers and hollow fibers, for example. Examples of bicomponent fibers are sheath/core, side-by-side, island
in the sea or trilobal. The plant manufacturer from Neumünster has many years of experience in this area. The first staple fiber plant for bicomponent fibers was commissioned in 1995.

444 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

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