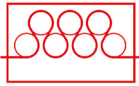


The technologies



BCF = Bulk Continuous filament

Today, more than 80 percent of carpets are manufactured using synthetic yarn made from polypropylene, polyester or polyamide. BCF yarns can be produced low price, are robust, low-maintenance and hypoallergenic.



Synthetic staple fibers

... are created by cutting filaments. They are applied in the most varied areas, such as textiles, filling materials or reinforcing fibers. Staple fibers are also further processed into synthetic nonwovens and can be used as geotextiles, insulating materials or in medical and hygiene applications.



Nonwovens

... are fabrics made of fibers, filaments or yarns which are bonded to a web and neither woven nor knitted. The applications for nonwovens range from hygiene products, medical products up to a broad selection of technical and industrial uses.

What exactly is...

Melt spinning

All Oerlikon Neumag technologies operate using the melt spinning process. Polymers are melted and pressed through spinnerets.

Filaments = endless yarns

Filaments are fibers of unlimited length.

Bicomponent fibers

... are fibers comprising two different polymers. The two polymers are united using special spinnerets. Bicomponent fibers are fibers with special properties, such as hollow fibers or three-dimensional, extremely crimped fibers.

Drawing

Filaments are drawn to provide them with tenacity and elongation. During cooling, the filament bundles are drawn in the direction of tension and the molecule chains, which previously had no specific order, orientate themselves parallel to each other.

Texturing

Texturing gives smooth yarn a crimped structure; in other words, a textile characteristic. Crimping influences the volume and the elasticity of the yarn.

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Oerlikon Neumag

Leading know-how for the production of BCF carpet yarns, synthetic staple fibers and nonwoven fabrics

Oerlikon Neumag

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The product portfolio

S+ and Sytec One BCF systems

BCF yarns are mono-colored or tricolored. A BCF system always comprises several spinning positions. Either three ends (S+) or one filament (Sytec One) can be produced per position.

Since being launched in 2011, the S+ has been the world's top selling BCF system. As a result of its technology, the Sytec One is particularly suited for special production procedures, such as processing recycled PET.

Did you know?

Around the world in three days – around 40,000 kilometers of carpet yarn can be produced with just one S+ position in three days, approximately corresponding to the circumference of the earth.

A 300 ton staple fiber system produces one thousand 1 m³ bales per day. Stacked, this results in a height of 1,000 meters and exceeds the Burj Khalifa in Dubai, currently the world's tallest building, by 172 meters.

Inline staple fiber systems

From spinning, cutting and packaging of the fibers, all process steps are carried out on a single plant = one-step process. This process permits the production of up to 70 tons of fibers per day. The fibers are mainly used for special applications like cement reinforcement or for nonwoven fabric production.

2-step staple fiber systems

A 2-step staple fiber system comprises two units: the spinning system and the fiber line. After spinning, the filament bundles are first piled into cans before they are subsequently drawn. The reason for this is the considerably higher production speed in the spinning system compared to the draw unit. This enables the production of up to 300 tons of fibers per day. Furthermore, a much larger number of fiber qualities can be produced than with the one-step process. The fibers are mainly used in the textile production.

Spunbond systems

In addition to their main application for diapers, spunbonds are today more and more used for industrial applications, as they are thin and light and efficiently producible. Geotextiles, bitumen roofing substrates, roofing underlayment – this is the area on which Oerlikon Neumag is focusing its technology and offering its customers not only simple spunbond systems, but also all the downstream processes through to the finished roll-goods.

Meltblown systems

Due to numerous processible polymers and producible fiber finenesses, meltblown systems are perfect for producing the most diverse high-quality meltblown nonwovens. As a result of their fiber fineness, meltblown nonwovens are mainly used as filters, insulation or sorbents. Meltblown nonwovens are inserted between spunbonds to create barrier layers.

Airlaid systems

In contrast to all other nonwovens, nonwovens produced on airlaid systems are not made from polymers, but from natural cellulose. Combined with super-absorbent powder or bicomponent fibers, the cellulose fibers are processed to airlaid nonwovens, for hygiene, medical and cleaning products: feminine hygiene, incontinence products, dressings, napkins, wipes – wherever extreme absorbency and great strength are essential.