BARMAG
A Subsidiary of the Rieter Group

Press Release

Object Carpet tests production of rPET BCF yarn on Neumag BCF line

Neumag BCF technology demonstrates the potential for carpet-to-carpet recycling

Neumünster, June 25, 2026 – In a joint project with Object Carpet GmbH, Denkendorf; the Institute for Textile Technology (ITA), Augsburg; and Next Generation Recyclingmaschinen GmbH (NGR), Feldkirchen, Austria, Barmag investigated the processing of recycled polyester for BCF yarn. The goal was to evaluate the fundamental suitability of 100% recycled carpet material for reuse in carpet yarn production to create a closed-loop system in carpet manufacturing. To date, commercial rPET BCF processes have been based solely on rPET from bottle pellets.

The tests were conducted on the Neumag BCF line at the R&D center in Neumünster. Thanks to its flexible process control and targeted parameterization, the line enables the processing of even challenging materials and is therefore well-suited for development and test runs.

As part of the investigations, recycled PET from 100% polyester NEOO carpet material supplied by Object Carpet was processed without the addition of virgin polymer. The trials, conducted on a practical production scale, demonstrated that it is possible to feed the material back into the spinning process. Dr. Kirsten Prehn, who is responsible for the Neumag BCF processes, summarizes: “During the trials, we observed that, as expected, material quality — particularly viscosity and purity — significantly influences process stability and yarn quality. Using the Neumag BCF system, we were able to adapt the process control specifically and flexibly to the particular requirements of the recycled polymer and thus produce BCF yarn.”

Part of the recycled yarn was subsequently used to produce a carpet sample. The results show that a closed-loop system in the BCF sector is not merely a theoretical concept: a mono-material carpet product can deliver a genuine recycling loop in practice — without the addition of virgin polymer. Neumag BCF systems can play a key role in the evaluation and further development of recycling processes. At the same time, the trials have identified areas where approaches for stable industrial implementation and further optimizations in material design and process control are possible. The flexibility of process control on Neumag BCF systems is an essential prerequisite for this.

2,386 characters including spaces

Barmag GmbH & Co. KG
Leverkuser Str. 65
D-42897 Remscheid

T +49 2191 67 0
F +49 2191 67 1313
www.barmag.com

Caption: From carpet to carpet: Flexible process control on Neumag BCF systems enables the targeted processing of recycled polymers and lays the foundation for closed-loop material cycles in carpet production.

About Barmag
Since 2026, the Swiss Rieter Group has been operating its man-made fibers business as subsidiary under the traditional name Barmag. This includes the established product brands Barmag and Neumag. As a future-oriented company, the research and development of Barmag is driven by energy-efficiency and sustainable technologies (e-save).

Barmag is one of the leading providers of manmade fibers filament spinning systems, texturing machines, BCF systems, staple fibers systems and solutions for the production of nonwovens. Together with its range of polycondensation and extrusion systems and their key components, Barmag caters to the entire manufacturing process – from the monomer all the way through to the textured yarn – and supports it with customer-oriented engineering services. The product portfolio is rounded off with automation and digital solutions. In addition, Barmag offers high-precision gear metering pumps for the textile industry and other sectors, including the automotive, chemical and paint industries.

The main markets for the Barmag product portfolio are in Asia, particularly in China, India, Türkiye and the USA. Worldwide, Barmag – with round about 2,500 employees – has a presence in 120 countries with production, sales and distribution and service organizations. At the Research and Development 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, please visit: www.barmag.com

Contact:

André Wissenberg
Marketing, Corporate Communications
& Public Affairs
Tel. +49 2191 67 2331
Fax +49 2191 67 1313
andre.wissenberg@barmag.com

Susanne Beyer
Marketing, Corporate Communications
& Public Affairs
Tel. +49 2191 67 1526
Fax +49 2191 67 1313
susanne.beyer@barmag.com