

## Performance Days: Exciting innovations push recycled and biobased fibers forward

By [Alexa Dehmel](#) | 10 March 2023

Performance Days will showcase some exciting improvements in the field of recycled and biobased synthetic fibers. We bring you a preview from our expert author and member of the Performance Days Jury, Alexa Dehmel.



Source: Performance Days

At the next **Performance Days** on March 15 and 16, 2023, at the Messe München in Munich, Germany, you can discover the latest enhanced approaches to recycled or biobased synthetic fibers in the **Performance Forum**, and you may also find the perfect fiber to integrate into your collection concepts.

### Recycled Polyester

Recycled Polyester from carbon capture yarn, using factory exhaust gases (a process also called CCU), could be a new futureproof alternative to recycled polyester from PET bottles, which will soon **no longer be available** in rough quantities. This process utilizes biotechnology, which transforms industrial waste gas into low-carbon MEG to be utilized in polyester production. For example, the results of **LanzaTech's** partnership with **FENC**, Bio3 PET. These new developments extend to 2Layer, membranes, fleece, shirt and baselayer fabrics.

## Recycled Nylon

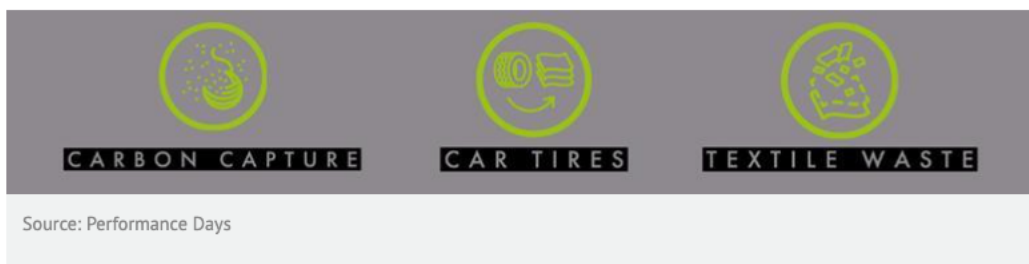
Recycled Nylon from old car tires is booming as a resource, and this season you can find it in the Performance Forum crossover fabric categories as a valuable alternative to other recycled nylon options. Watch out for Q-cycle from **BASF** and **Fulgar's** collaboration, which has as its basis recycled prime materials from end-of-life tires. This allows for a reduction of CO2 eq. emissions of about 40 percent when compared to other fibers. **Michelin**, the french tire company, is about to build a new pyrolysis factory in Chile.

In both polyester and nylon categories, you will also see improved biobased alternatives as well as biodegradable developments at Performance Days 2023.

## Use of textile waste

Recycled fabric developments from textile waste are steadily increasing. You will find fabrics from scraps, fibre2fibre and wear2wear concepts in synthetic and natural fibers on show this year. Wear2wear has huge potential and supports **circular models**, which close the textile loop.

More and more upcycling of pre-consumer cotton scraps from garment production is contributing to the circular economy. We created three new icons for these specific developments:



## Polypropylene fabrics

Last but not least, polypropylene (PP) is a synthetic fiber with a low carbon footprint because of its chemical nature. It is now possible to overcome its electrical resistance and create teddy fleece.

Another achievement is a woven fabric with 50 percent PP from post-consumer waste. This is a proof-of-concept breakthrough for both sourcing and processing recycled PP. The dyeing process is waterless, using instead dope dyeing or spin dyeing. 2 layer fabrics composed of 100 percent polypropylene – both face and membrane that has water resistance without water repellent – can be super light now, as well as made from European biobased polypropylene from organic waste.