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# SPINNING A YARN WITH A 75 PERCENT CO<sub>2</sub> EMISSIONS REDUCTION

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Globally, more and more people are moving away from the countryside and into urban areas. Big cities are becoming megacities. According to the UN, by 2050, almost 70 percent of the world's population will be living in urban regions, metropolises, and megacities. This poses new challenges for construction, mobility, health, and sustainability at work and at home. Beaulieu International Group is following these trends intently. It has developed and is producing new types of polyamide yarns to match these growing demands for health and sustainability, specifically in carpeting.

Carpets and rugs are ubiquitous: They appear as broadloom carpets, carpet tiles and rugs in homes, as well as in professional settings and vehicles, to name but a few uses. The contact surfaces of these products are often made from industrially produced yarn. Yarns were some of the very first products manufactured on an industrial scale. Their developers have not forgotten their pioneering role in innovation, and the sector is taking significant steps to reduce its carbon footprint.

Chief among these companies is Beaulieu International Group's Engineered Products division. Its EgoBalance® yarns allow a reduction by 75 percent of the total CO<sub>2</sub> emission during entire production steps. EgoBalance® replaces non-renewable resource-based polymers in yarn creation with polymers based on renewable sources — in this case, biomass.

## **The perfect blend of organic and synthetic**

### ***Replacing non-renewable resources with sustainable resources***

Beaulieu produces polyamide and polypropylene yarns, both of which are synthetic, as opposed to yarns from sheep or alpaca wool, for example. Synthetic yarns are made from polymers. Traditionally, these require fossil fuels to be manufactured. EgoBalance® replaces this fossil fuel component with raw material from biomass. This method is called "biomass balance" and is one of the chemical industry's recent innovations.

Our sustainable yarns are produced using the biomass balance principle that is similar to green electricity. From the very start of the supply chain, natural renewable resources such as biogas or bio-naphta are used along with fossil fuels to produce polymers that provide the basis for yarn production. The result is EgoBalance® yarns. Fossil resources needed to manufacture EgoBalance are verifiably replaced with renewable resources in the value chain.

## **The change that requires no change at all**

### ***The same quality and the same process at a lower environmental cost***

CO<sub>2</sub> is one of the world's most notorious greenhouse gases. One of its properties is that it traps heat in the atmosphere; another is that it increases acidity levels in the ocean. Industrial CO<sub>2</sub> emissions are a globally recognized challenge, and tackling that challenge begins at the start of the manufacturing process. Using yarns that promise 75 percent fewer CO<sub>2</sub> emissions during the production process is an attractive option. But does it change anything for the carpet manufacturer?

It does not. Carpet manufacturers can use the same machines and production techniques with the EgoBalance® yarn as they would have used with traditional polyamide yarns. It requires no additional investment or product development, and it does not affect the end-product's quality in any way.

## Starting out in pole position

### *Green compliance as an increasing necessity*

If textile companies use EgoBalance® yarns, they already start out ahead in the race for climate action. Carpet manufacturers or carpet tile makers worldwide are also increasingly requesting products that are environmentally friendly. They want to achieve corporate sustainability goals, meet end-customer demands, or anticipate governmental regulation.

Once trends gain steam and come with visible benefits, they can become unstoppable. There is no telling how fast sustainable yarns may spread as part of a wave of sustainable technologies. As they build momentum in one corner, companies will look at continuing that momentum in another corner. Beaulieu International Group is also pursuing this course. Its innovations in carpet yarns that replace fossil fuels with biomass are happening concurrently with the efforts of other divisions to make recyclable event carpets or to push the envelope in reducing flooring production waste near to zero.

### Would you like to know more?

You can visit the dedicated [eqobalance.com](http://eqobalance.com) page to learn more about emission-reductive EgoBalance® yarns for carpets. You can also go to [bintg.com](http://bintg.com) and check out what other initiatives Beaulieu International Group has developed or is developing to help ensure that current and future generations inherit a world that is better and more sustainable than the one we found. ■



## WHO IS BEAULIEU INTERNATIONAL GROUP?

Beaulieu was founded in 1959 in Belgium and is a global producer of flooring solutions, engineered fibers, yarns and technical textiles, as well as polymers. The group employs more than 5,000 people worldwide and has offices and plants in 17 countries across five continents. Beaulieu International Group enjoyed a 2018 turnover of €2 billion, 20 percent of which came from its Engineered Products division. It is this division that created the EgoBalance® yarn, based on the biomass balance model.

## THE INTERFACE CASE IN STOCKHOLM'S ARLANDA AIRPORT

EgoBalance® was originally developed on request by Interface, a leading global provider of commercial flooring solutions. One of the company's goals is to be carbon neutral by 2020 and carbon negative by 2040. According to the GlobeScan / SustainAbility Leaders Survey, for more than 20 years it has been one of the world's top companies in terms of sustainable development leadership. As such, Interface's Straightforward II carpet tiles are created with Beaulieu's EgoBalance® yarns and were used in the renovation of Stockholm's Arlanda Airport, which handles about 30 million passengers every year. Stockholm Arlanda Airport wants to become the leading airport in Scandinavia and become a role model for sustainability. Hence, the Straightforward II tiles with Beaulieu's EgoBalance® yarns were a perfect fit.



## CERTIFICATIONS

Beaulieu EgoBalance® yarn is the very first yarn certified by TÜV SÜD for meeting the new REDcert standard on the "use of sustainable biomass for material purposes in the chemical industry." REDcert extended the initial scope of its standard to allow for considerations of impact. Sustainable technologies can only benefit the environment if they can be widely adopted or impact sectors with a large economic footprint (such as the tufting industry).

As such, chemical companies such as Beaulieu International Group are increasingly relying on the use of sustainably produced and certified biomass to replace fossil-based raw materials. EgoBalance® has been validated and certified with an Environmental Product Declaration, meaning it complies with the ISO 14025 standard.