

Genomatica to Scale Bio-nylon 50-Fold with Aquafil to Meet Surging Brand Demand

Clean manufacturing leaders team up to produce world's largest quantities of bio-nylon

SAN DIEGO, California (November 19, 2020) — Clean manufacturing leader [Genomatica](#) signed a first-of-its-kind deal with Aquafil to build a demonstration scale facility to produce the largest quantity of 100% renewable nylon-6 ever available. Responding to surging consumer interest in sustainable products, the material will go to leading global brands eager to explore and develop renewable products, create showcase goods and test feedback with customers. The deal is a 50-fold expansion over previous production levels and represents significant acceleration toward commercializing renewably-sourced nylon-6 — a material that is poised to reshape a \$960 billion textile industry that touches millions of lives every day, from the carpet we walk on to the clothes we wear.

This multi-year agreement provides the foundation for a more sustainable nylon value chain by expanding a longstanding Genomatica partnership with major European nylon producer Aquafil. The two companies teamed up in January 2020 to produce the [world's first ton of bio-nylon-6 precursor](#) at pilot scale. Relying on their expertise in scaling up renewably-sourced chemicals, Genomatica and Aquafil are moving directly to a larger-than-typical demonstration scale to support initial commercial applications by committed brand partners. The first production runs are slated to create 50 tons of bio-nylon for pre-commercial use by Genomatica's brand partners, with the demonstration plant to continue supporting product needs until commercial scale plants are in operation.

"Bio-nylon is positioned to replace a material that's used in millions of applications every day," said Christophe Schilling, Genomatica CEO. "Our [research shows](#) that despite health and economic turmoil, 56% of Americans still want brands to prioritize sustainability. With this scale, Genomatica is offering our brand partners a key way to meet their sustainability objectives, differentiate themselves, and meet surging consumer demand."

Genomatica and Aquafil will work together to implement and refine their respective technology contributions through this demonstration program and create large quantities of bio-nylon. Aquafil will build and operate the downstream operations of this large-scale demonstration plant at its facility in Slovenia, where it will convert Genomatica's bio-based precursor to commercial-quality bio-nylon-6 yarns, films and engineered plastics. The produced material will be used to develop renewably-sourced products, replacing traditional nylon that generates upwards of 60 million tons of greenhouse gas emissions annually. Under this agreement, initial volumes of bio-nylon ingredients will be available in the latter half of 2021.

Genomatica has a proven track record of successfully scaling technology from idea to commercialization stage for multiple renewably-made products:

- Genomatica [teamed with bioplastics leader Novamont](#) to open the world's first commercial plant for bio-based BDO, with a capacity of 30,000 tons annually, which reduces greenhouse gas emissions by 50% compared to petroleum-based, and is used widely in products ranging from compostable shopping bags to Lavazza coffee capsules.

- Genomatica also produces large quantities of Brontide™ natural butylene glycol, which has been evaluated by more than 250 formulators, slashes greenhouse gas emissions by 51% compared to traditional production, and is an active ingredient in dozens of cosmetics and consumer care products on the market today including in brands like Farmacy and Kinfield.
- Genomatica's technology to make bio-nylon precursor was recognized in [TIME's Best Inventions](#) for 2019 and the company's technologies have won the prestigious [EPA Green Chemistry Challenge Award](#) three times. For more info, see Genomatica's "[remaking nylon](#)" video.

About Genomatica

Genomatica is harnessing synthetic biology to remake the world of everyday products and materials through the power of clean manufacturing. The company is developing more sustainable, higher-performance key ingredients for everyday products, using plants and waste rather than fossil fuels or other non-sustainable sources like palm oil. Genomatica has already commercialized products to make better plastics, spandex and cosmetics, and is working on nylon, household cleaners and more. To learn more, visit www.genomatica.com.

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