

Bioplastic value chain partnership delivers new sustainable textiles

BEIJING, China, 13th February 2024 – TotalEnergies Corbion collaborates with Bluepha to create sustainable fibers using Luminy® PLA and Bluepha® PHA. As a result of the strategic agreement, established back in May 2023, the partnership between the two companies aims to advance the applications and development of Polylactic Acid (PLA) and Polyhydroxyalkanoates (PHA) products in the Chinese market.

In the fiber industry, improvements in processes are crucial to color stability and environmental protection of products. TotalEnergies Corbion and Bluepha work together to address challenges in the dyeing process of blended fibers. The primary focus is resolving issues like uneven dyeing and fiber thermal stability, caused by varying molecular structures.

Thomas Philipon, CEO of TotalEnergies Corbion states, “Our companies believe in the power of value chain collaboration globally to deliver innovation. We work with trendsetters across the globe to find new sustainable solutions. Both our companies are committed to delivering high-quality fiber products and solutions to their partners, fostering innovation and sustainability in the fiber industry.”

Bluepha’s Co-founder and President, Dr. Li Teng, added: “The development of the biodegradable materials field is very important in achieving sustainability goals and reducing carbon emissions. This cooperation has proven the applications of PLA/PHA blended fiber, in the fields of sustainable design and fashion, bring new solutions to the sustainable development of the fiber industry.



The blend of Bluepha® PHA and Luminy® PLA creates a natural organic fabric that is lightweight and wear-resistant with a soft, waxy texture, but also potentially antibacterial and anti-odor, according to existing research. Based on PHA and PLA blend fiber technology developments, and HowBottle®'s innovative design concepts, the companies develop trendy fiber products that widen the sustainability options for consumers. The first commercial products are expected to enter the market by mid 2024.

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For more information please contact:

Rui Veras

Marketing Communications Manager

M +31 629 055 522

E rui.veras@totalenergies-corbion.com

About TotalEnergies Corbion

TotalEnergies Corbion is a global technology leader in Poly Lactic Acid (PLA) and lactide monomers. PLA is a biobased and biodegradable polymer made from annually renewable resources, offering a reduced carbon footprint versus traditional plastics. The Luminy® PLA portfolio, which includes both high heat and standard PLA grades, is an innovative material that is used in a wide range of markets from packaging to consumer goods, fibers and automotive. TotalEnergies Corbion, headquartered in the Netherlands, operates a 75,000 tons per year PLA production facility in Rayong, Thailand. The company is a 50/50 joint venture between TotalEnergies and Corbion. www.totalenergies-corbion.com

About TotalEnergies

TotalEnergies is a global multi-energy company that produces and markets energies on a global scale: oil and biofuels, natural gas and green gases, renewables and electricity. Our 105,000 employees are committed to energy that is ever more affordable, cleaner, more reliable and accessible to as many people as possible. Active in more than 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people. www.totalenergies.com

About Corbion

Corbion is the global market leader in lactic acid and its derivatives, and a leading supplier of emulsifiers, functional enzyme blends, minerals, vitamins, and algae ingredients. We use our unique expertise in fermentation and other processes to deliver sustainable solutions for the preservation of food and food production, health, and our planet. For over 100 years, we have been uncompromising in our commitment to safety, quality, innovation and performance. Drawing on our deep application and product knowledge, we work side-by-side with customers to make our cutting-edge technologies work for them. Our solutions help differentiate products in markets such as food, home & personal care, animal nutrition, pharmaceuticals, medical devices, and bioplastics. In 2020, Corbion generated annual sales of € 986.5 million and had a workforce of 2,267 FTE. Corbion is listed on Euronext Amsterdam. www.corbion.com

About Bluepha®

Founded in 2016, Bluepha is a purpose-driven company dedicated to molecular and material innovation based on synthetic biotechnology. We built our own specialized biology automation platforms to engineer microorganisms as a new way to design and manufacture molecules and materials, that can provide better solutions to global sustainability and carbon neutrality. Our first commercialized product, Bluepha® PHA, is a biobased and biodegradable natural polymer made from renewable resources, offering a reduced carbon footprint versus conventional plastics. As of now, BioFAB1, Bluepha's production facility in Yancheng, China, is operating at an annual capacity of 5,000 tonnes. Currently, Bluepha invests in promoting Phase II and Phase III of the production facilities, and thus achieve a production capacity of 75,000 tonnes in the coming years. www.bluepha.bio

About HowBottle®

HowBottle®, a local sustainable brand in China, uses recycled materials as its design inspiration. Since 2017, it has been focusing on the design, development and creativity of environmentally friendly recycled material products. Committed to building and developing more consumption scenarios for sustainable products, it brings a new perspective to Chinese young people's understanding of sustainable consumption.

TotalEnergies Corbion

Stadhuisplein 70 • 4203 NS • Gorinchem • P.O. Box 2025 • 4200 BA • Gorinchem • The Netherlands

T +31 183 695 695 • F +31 183 695 602 • E pla@totalenergies-corbion.com

Chamber of Commerce no. 67982913

www.totalenergies-corbion.com