We create chemistry

News Release

P212/24e
June 7, 2024

An industry-first: BASF is expanding its Biopolymers portfolio by introducing biomass-balanced ecoflex® (PBAT)

- **New ecoflex® F Blend C1200 BMB has 60% lower Product Carbon Footprint than the standard ecoflex® grade**
- **Fossil-based feedstocks are replaced with renewable alternatives from waste-based feedstocks and attributed to the product via certified biomass balance (BMB) approach**
- **Drop-in solution: ecoflex® BMB has the same properties, performance, machine processability and biodegradation certificates as the standard ecoflex® grade**
- **Biomass-balanced ecoflex® helps the packaging industry increase the use of renewable feedstock**

BASF is now offering the packaging industry a way to increase the use of renewable feedstocks: It is expanding its portfolio of certified compostable biopolymers to include a biomass-balanced (BMB) ecoflex®, a polybutylene adipate terephthalate (PBAT) that is frequently used in the compounding of biopolymers. For the new ecoflex® F Blend C1200 BMB, the fossil raw materials that are usually used in the production process are replaced with renewable feedstock at the beginning of the value chain. The renewable feedstock comes from waste and residual biomass and is attributed to the ecoflex® grade via a mass balance approach which is certified according to REDcert^2 and ISCC PLUS (1). The biomass-balanced ecoflex® not only contributes to reducing the use of fossil resources, but it also offers a 60% lower Product Carbon Footprint (PCF) (2) than the standard ecoflex® F Blend C1200.

Media Relations
Dr. Ulla Biernat
ulla.biernat@basf.com
www.plastics.basf.com

BASF SE
67056 Ludwigshafen
www.basf.com
presse.kontakt@basf.com

Certified compostable products based on PBAT compounds help create a circular economy by supporting the collection and recycling of organic waste. However, in the production of PBAT, it is not yet possible to fully avoid the usage of fossil resources. With ecoflex® BMB, BASF closes this gap and offers a solution that is organically recyclable at the end of life: In addition, its fossil feedstock is completely replaced with renewable raw materials at the very beginning of the production process. BASF is thus taking another step towards closing the biological loop of circular economy.

ecoflex® BMB enables customers in the packaging industry to contribute to the reduction of fossil resource consumption and differentiate their products without compromising on performance and quality, or the need for extra investment into new processing lines: The BASF PBAT is identical to the conventional grade in properties, quality, and certification. As a result, customers do not need to re-qualify their applications made of ecoflex® BMB, reformulate the compounds or adapt their existing manufacturing processes: They can rely on the same performance to which they are accustomed and benefit from a drop-in solution. “As a pioneer of biopolymers, we are continuously striving to support our customers in the transition to a circular economy with renewable resources”, says Marcel Philipp Barth, head of global business management Biopolymers at BASF. “Our ecoflex® BMB, an industry-first on the global biopolymers market, advances the sustainability efforts in the packaging industry by reducing the use of fossil resources, decreasing greenhouse gas emissions, and driving the use of renewable feedstock derived from organic waste and residual biomass. In this way, we help our customers make informed decisions about product design, thus shaping a more circular packaging value chain.”

Biomass balance approach

In the biomass balance approach, part of the fossil feedstocks in the first steps of the manufacturing process is replaced by waste-based renewable resources. The renewable amount is then attributed to specific products at the end of the manufacturing process by means of a third-party certified method: BASF has established a chain of custody from the renewable feedstock it uses through to the final product. An independent certification confirms that BASF has replaced the required quantities of fossil feedstock for the biomass balanced product that

customers buy with renewable feedstock according to the REDcert[2] and ISCC PLUS requirements.

ecoflex® – pioneered by BASF

Since its introduction in 1998, ecoflex® is the first commercially available biodegradable and certified compostable biopolymer on the market. Biopolymer innovations based on ecoflex® have opened up new end-of-life options for plastics that enable organics recycling and thus contribute to a circular economy. As a blend partner, ecoflex® provides the certified compostable BASF compound ecovio® with special material properties such as flexibility and toughness. Studies have shown the advantages of ecovio® for production, packaging, and shelf life of food as well as for the collection of food waste. These advantages are based on the material's properties, including its certifications for biodegradability in commercial and home composting as well as in agricultural soil: Food waste is reduced and at the end of life, ecoflex® and ecovio® support the collection of food waste ensuring that nutrients are returned to the soil by high-quality compost. This contributes to a circular economy by closing the nutrient cycle via organics recycling.

Further information:
www.ecoflex.basf.com
www.basf.com/massbalance

About BASF's Performance Materials division

BASF's Performance Materials division is at the forefront of the much-needed sustainability transformation in plastics. Our products are co-created with customers around the globe to bring innovations to major industry sectors such as transportation, consumer goods, industrial applications, and construction. Our R&D focuses on all stages of the plastics journey: Make, Use and Recycle. The MAKE phase is about improving how plastics are made, from product design to the choice of raw materials and the manufacturing process itself. The USE phase enhances plastics' strengths such as light weight, robustness, and thermal resistance. At the end of the product lifecycle, the RECYCLE phase looks at how to close the loop to achieve a circular economy. In 2023, the Performance Materials division achieved global sales of €7.2 billion. Join #ourplasticsjourney at: https://www.performance-materials.basf.com

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 112,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world.

Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €68.9 billion in 2023. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.

(1) REDcert^2 and ISCC PLUS are sustainability certification schemes for the use of sustainable biomass as raw material in the chemical industry. A certification according to these certification schemes confirms that the biomass used is sustainable and has been fed into the production system in the required amount. It also confirms that the sustainable biomass has been correctly attributed to the corresponding sales products. The certifications are awarded on the basis of on-site audits conducted by independent auditors.
(2) BASF's product carbon footprint (PCF) calculations for conventional products follow the requirements and guidance given by ISO 14067:2018. A TÜV Rheinland methodology review has certified that the SCOTT PCF methodology developed and used by BASF SE is based on scientific evidence, meets ISO 14067:2018 and the Together for Sustainability PCF policy, and reflects the state of the art (ID no. 0000080389: BASF SE – Certipedia). TÜV Rheinland also confirms that the biomass balance (BMB) PCF calculation method and the associated PCF reduction for BMB-certified products follow the conventional LCA method in accordance with ISO 14067 and the Together for Sustainability (TfS) policy.