We create chemistry

News Release

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The world's first biomass-balanced polyethersulfone (PESU)

- **With Ultrason® E 2010 BMB, fossil feedstock is replaced with renewable alternatives from waste-based resources and attributed to the product via a certified biomass balance approach**
- **Drop-in solution: Ultrason® E 2010 BMB has the same properties, performance, machine processability and certificates as its standard Ultrason® counterpart**
- **High-performance plastic supports many industries like household, automotive and E&E to increase the use of renewable feedstock and to reduce emissions**

To all industries relying on high-performance thermoplastics, BASF is now offering the world's first biomass-balanced polyethersulfone (PESU). Ultrason® E 2010 BMB contributes to substituting fossil resources, reducing greenhouse gas emissions, and increasing the use of renewable feedstock. This unique PESU enables customers in industries as diverse as household and catering, automotive, electrics and electronics (E&E), healthcare as well as water and sanitary to differentiate their products from the competition. It also helps them to achieve their sustainability goals - all without compromising on the material's performance, quality or the need to invest extra money into new processing lines.

For biomass-balanced (BMB) Ultrason® E 2010, fossil raw materials are replaced by renewable feedstock at the beginning of production. The renewable feedstock comes from organic waste: the corresponding amount is attributed to the Ultrason®

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grade via a mass balance approach which is certified according to ISCC PLUS (1). The resulting BMB grade has a lower product carbon footprint (PCF) compared to the standard BASF material (2) by using renewable feedstock and 100% green electricity in a resource-efficient process in the production plant in Ludwigshafen, Germany. BASF also offers its Ultrason® customers transparency by providing PCF data to support them in evaluating the PCF of their own products. This benefits many applications used in daily life like reusable bottles for adults and babies, microwave dishes and appliances, but also automotive fuel parts, medical devices, E&E connectors and consumer electronics.

In addition to these sustainability advantages, Ultrason® E 2010 BMB is a drop-in solution: The BASF PESU is identical to the standard grade in properties, quality, and certification for e.g., food and water contact. As a result, customers do not have to re-qualify their applications made of Ultrason® E 2020 BMB or adapt their existing manufacturing processes for injection molding or extrusion: They can rely on the same high performance to which they are accustomed to. “BASF is the first company to offer biomass-balanced polyethersulfone”, says Erik Gubbels from Global Business Development Ultrason® at BASF. “With this addition to our innovative Ultrason® portfolio we want to enable our customers’ green transformation towards more circular solutions – and this as early as possible on their journey to meet their sustainability targets.” 50% of the fossil raw materials required for the manufacturing of Ultrason® E 2010 are replaced by ISCC PLUS certified bio-circular feedstocks which results in an attributed amount of 39% to the final Ultrason® E 2010 BMB grade.

Reliable calculation and third-party certification for proven lower PCF

BASF has developed a digital application to calculate the cradle-to-gate PCFs for its sales products, including Ultrason®. The PCF comprises all product-related greenhouse gas emissions that occur until the BASF product leaves the factory gate: from the purchased raw material to emissions from operations and the use of energy in production processes. Options for reducing PCF include the usage of green electricity in the production or attributing renewable materials via a biomass balance approach. In this approach, the fossil feedstocks at the beginning of production are replaced by biomass-based 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: This 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 e.g., ISCC PLUS requirements.

Ultrason® is the trade name for BASF's product range of polyethersulfone (Ultrason® E), polysulfone (Ultrason® S) and polyphenylsulfone (Ultrason® P). The high-performance thermoplastic is used to manufacture water filtration membranes, stylish, durable and safe household and catering applications as well as lightweight components for the automotive and aerospace industries. Ultrason® brands can substitute thermosets, metals and ceramics in many applications because of their extraordinary property profile.

More information: www.ultrason.basf.com

About BASF's Performance Materials division

BASF's Performance Materials division leads the transformation of the plastics industry by merging sustainability with a competitive edge. Our broad material competencies and product portfolio, backed by deep industry understanding, make us the ideal one-stop-shop. With dedicated material-focused teams and strong R&D power, we deliver industry-leading technologies and expertise to our customers worldwide. Our global network ensures a competitive advantage through superior innovations, regional proximity, and tailor-made solutions that meet local market demands. We are committed to enhancing performance and efficiency across sectors such as automotive, consumer goods, industrial applications, and construction. With BASF, our partners embark on #OurPlasticsJourney towards a more circular and sustainable future. In 2024, the Performance Materials division achieved global sales of €6.8 billion. Join #OurPlasticsJourney on LinkedIn https://on.basf.com/PM_LinkedIn and in our newsletter https://on.basf.com/PM_Newsletter.
Further information at https://www.performance-materials.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. Our ambition: We want to be the preferred chemical company to enable our customers' green transformation. 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, as core businesses, the segments Chemicals, Materials, Industrial Solutions, and Nutrition & Care; our standalone businesses are bundled in the segments Surface Technologies and Agricultural Solutions. BASF generated sales of €65.3 billion in 2024. 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) ISCC PLUS is a sustainability certification scheme for the use of sustainable biomass as raw material in the chemical industry. A certification according to this certification scheme 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 certification is 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.