News Release

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BASF is paving the way for an infinite range of sustainable plastic solutions at Fakuma 2023

- **Collaborating with customers and partners, BASF is dedicated to creating plastics for a circular economy**
- **BASF's innovative technology is in line with current trends and is working towards net-zero emissions in various industries**

Plastics are an integral part of modern life; however, there is increasing public concern regarding their usage. To address this, BASF is striving to reduce plastic waste, conserve raw materials, and maximize the potential of materials during use. Achieving this goal requires continued innovation. BASF will be showcasing a large number of them from October 17-21 at the 28th Fakuma in Friedrichshafen, Germany (booth B4-4303). Go!Create - welcome to #ourplasticsjourney towards a sustainable future.

Mass balanced products – from end-of-life tires to door handle and crash absorber

BASF's portfolio offers products that make the best possible use of existing resources and clearly reduce greenhouse gas emissions during production. Among them are mass-balanced plastics that pursue two goals at once: resource conservation through the use of circular raw materials instead of fossil raw materials and a reduced CO_2 footprint (Product Carbon Footprint = PCF). Such products are

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already being used, for example, in the bow door handles of the Mercedes-Benz S-Class and the EQE. In addition, the concept has now also been adopted for the production of crash absorbers for the Mercedes-Benz S-Class.

More about sustainability in transportation

eMobility – BASF focuses on sustainability and innovation

Innovative automotive solutions reflect BASF's commitment to the automotive industry sustainability goals. By providing high-performance materials to reduce emissions and promote sustainable production methods, BASF is driving the industry towards a greener future. At the upcoming exhibition, a range of innovative eMobility applications will be showcased, including charging solutions, high-voltage connectors and bus bar holders. In focus as well are battery components meeting high-performance and safety standards during normal use but also in the case of damage or accidents. Therefore, any material needs to be carefully assessed by its flame retardancy, electric isolation, thermal conductivity and cooling compatibility.

www.emobility-plastics.basf.com

Ultramid® Advanced (PPA): Metal replacement, color matching and constant mechanics at continuous use temperatures

BASF shows its whole range of polyphthalamides (PPA) at the booth based on its excellent compounding capabilities – covering growing customer needs for metal replacement, constant mechanical properties at high continuous-use temperatures and color matching in sectors like e-mobility, fuel cell, electronics and electric (E&E) as well as mechanical engineering. Ultramid® Advanced grades will be on display that enhance the robustness, long-term performance and reliability in harsh conditions also of colored, flame-retardant parts – from eMobility orange to appliance white. For metal replacement in structural parts, e.g. in consumer electronics, BASF offers several PPA grades with excellent stiffness, dimensional stability and good surface finish plus easy processing.

www.ppa.basf.com

Ultramid® Expand – the new particle foam that let ideas expand

BASF has developed a new, high-performance polyamide-based particle foam that offers unique properties either for use in structural applications or in the battery of electric vehicles. The foam shows a high heat deflection temperature and excellent mechanical properties at temperatures above 120°C, making it ideal for use in high-temperature applications. Additionally, the foam has exceptional chemical resistance against automotive liquids, ensuring long-lasting durability and reliability. One of the most significant advantages of this new foam is its drop-in compatibility with existing EPP tooling, making it an easy and cost-effective solution for manufacturers. The foam is compatible with cathodic dip coating and offers excellent recyclability.

www.ultramid-expand.basf.com

Ultramid® Ccycled® – Chemical recycling for packaging and textile applications

One example is BASF's polyamide Ultramid® Ccycled® – a future-oriented mass-balanced product that supports the use of alternative raw materials from the chemical recycling of plastic waste. Chemical recycling currently uses plastic waste that is difficult to recycle, such as end-of-life tyres or mixed plastics, thus keeping it in the material cycle. The recycled raw material is fed into the beginning of the BASF production Verbund and attributed to Ultramid® Ccycled® products via a mass-balance approach. Fossil raw materials are thus replaced and saved. Customers use Ccycled® products in many segments, such as textiles and packaging. Since Ultramid® Ccycled® has the same quality as the conventional product, this polyamide is also ideally suited for highly regulated applications such as food packaging.

www.ultramid-ccycled.basf.com

PE/PA multilayer films are recyclable

BASF has also done a lot with regard to polyethylene/polyamide multilayer films: Since fall 2022, coextruded PE/PA film structures have been considered mechanically recyclable. Based on the studies of Institute cyclos-HTP GmbH, the Stiftung Zentrale Stelle Verpackungsregister (Central Agency Packaging Register) has reclassified the recyclability of polyamides in the minimum standard. This is an

important first step towards incorporating the benefits of polyamide-containing packaging and the latest findings on the recyclability of polyamides into the legal basis. As a major producer of Ultramid® extrusion polyamides for multilayer films, BASF is involved in projects for objective categorization of polyamides in flexible packaging applications.

www.mechanical-recycling.basf.com

Ultrason® (PSU, PESU, PPSU): colorful, electrifying and innovative

More colors, faster innovation: Ultrason® now collaborates with Avient to offer colored polyarylethersulfone (PAES) grades to the global plastics market. Customers can react more quickly to design trends, meet color standards, and increase speed to market. For the E&E industry and for electric cars, new materials have been developed that show high tracking resistance (CTI), enabling innovative components for special E&E applications and increasing the efficiency of electric motors for today’s and future eMobility.

www.ultrason.basf.com

Improving the product carbon footprint with Biomass Balance by BASF

Elastollan® BMB is a thermoplastic polyurethane (TPU) certified for saving fossil resources and greenhouse gas emissions, but delivering the same performance as standard grades. Renewable resources such as biomethane and bio-naphtha, which are produced from organic waste or vegetable oils, are fed into BASF's plants together with fossil resources at the beginning of the multi-stage production process. The biomass-balanced Elastollan®, to which the renewable resources are assigned, is identical in formulation and quality to conventional fossil products. This production process is certified by an independent certification body. As an application example for Elastollan® BMB, BASF presents a flat hose that can be used, for example, in agriculture, industry or for water transport.

Innovative materials for new mobility concepts

Building tomorrow's car requires high performance material solutions: Charging cables for electric vehicles need cable sheaths that offer high UV, weathering, ozone and microbe resistance while also providing excellent abrasion resistance, flame retardancy and flexibility. At Fakuma, BASF is exhibiting thermoplastic polyurethane Elastollan®, which is known for this resistance and performance. Therefore, also battery or sensor cables that are, for example, used in ABS systems, benefit from outer-sheaths made of Elastollan®, which ensure a secure flow of information and thus increase safety in the car - even in wet, vibratory and cold environments. Not only cable sheaths benefit from the performance of Elastollan®, this is also of great importance for busbars, cable protection hoses, sealing lips, spring pads, haptic and surface elements in the interior and other molded parts in the car. Durability and recyclability are just two of many aspects that are taken into account when developing new mobility concepts with BASF as a partner.

www.elastollan.com

PACIFIC – the innovative app to exchange product carbon footprint data

In October 2023, BASF will launch PACIFIC, an innovative platform solution that provides PCF data of BASF products across the entire value chain. This new platform enables customers of the automotive industry to exchange data efficiently. The app makes an important contribution to calculate the PCF of finished products based on the PCF of the raw materials - quickly and user-friendly. With just a few clicks, PCF data for purchased products can be viewed and made transparent.

BASF's mission is to provide innovative digital solutions that help customers to achieve their sustainability goals. This platform is a prime example of dedication to this cause.

Further information: www.fakuma.basf.com

About BASF's Performance Materials division

BASF's Performance Materials division encompasses the entire materials' know-how of BASF regarding innovative, customized plastics under one roof. Globally active in four major industry sectors – transportation, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with deep understanding of application-oriented system solutions. Key drivers of profitability and growth are our close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis to develop innovative products and applications. In 2020, the Performance Materials division achieved global sales of €5.63 bn. More information online: www.plastics.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 110,000 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 is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2020. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.