

News Release

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Reusable to-go mugs made of Ultrason® for a sustainable lifestyle

- **Polyphenylsulfone Ultrason® P 3010 offers durability, high-temperature resistance and design versatility for multiple cycle usage**
- **To-go mugs by Yiwu Midi Technology contribute to less packaging waste and thus support circular economy**

Bottle manufacturer Yiwu Midi Technology, Zhejiang has selected Ultrason® P 3010 from BASF to produce reusable to-go mugs for the market launch of its new business segment. Because of its durability, high-temperature resistance and design versatility the BASF polyphenylsulfone (PPSU) offers a unique combination of lifestyle attributes and sustainability for high-quality to-go cups that are lightweight, shatter-proof and fashionable: Ultrason® P 3010 maintains the flavor of e.g. coffee without any impact on taste or odor. It does not show any discoloration by contact with hot or cold liquids like coffee, juices, soft drinks or tea.

At the same time, the BASF thermoplastic polymer contributes to less packaging waste as the mugs can be reused many times and thus support a circular economy: The chemically resistant Ultrason® P 3010 easily withstands cleaning agents as well as the high temperatures in dishwashers and is even sterilization-proof without losing its excellent mechanical properties or visual appearance. Thus, reusable to-go mugs made of Ultrason® can be part of a reuse and multiple-cycle system that saves valuable resources and avoids packaging waste as targeted in the Single-use Plastics EU Directive 2019/904.

More design freedom and contribution to a sustainable way of life

Ultrason® P 3010 is a medium-viscosity injection-molding and extrusion grade with temperature-independent properties spanning a wide temperature range from -30 to +180°C. It is food contact compliant in the US, the EU and China. “Many to-go mugs on the market are either made of single-use materials, are not resistant to hot liquids or are made of easily breakable glass, or of steel which lacks design freedom”, says Georg Graessel from Global Business Development Ultrason® at BASF. “Our PPSU with superior toughness and chemical resistance is a high-performance and sustainable alternative to such materials. It gives our customers more freedom in design and provides consumers with long-term usage so that people can enjoy their daily cup of take-out coffee with pleasure and a quiet conscience.”

The slightly honey-colored tint of Ultrason® and its good processability allow the mugs to stand apart from those available in the market today. The mugs by Yiwu Midi Technology have two air vents, an additional straw opening and a hand grip ring made of silicone, making them practical in use and elegant in appearance at the same time. Ultrason® P 3010 can be easily manufactured in combination with other materials like silicone.

“The take-out coffee culture in China is increasing but especially younger people are more and more aware of the influence of their lifestyle on the environment”, says Xiong Han, General Manager at Yiwu Midi Technology. “When we decided to expand our bottle business to the manufacturing of to-go mugs, our search for a partner was easy: We have been working with BASF for a long time and know that Ultrason® is an excellent material for baby bottles. It offers us the perfect combination of performance, safety and design. And because of its long-term resistance and multifunctionality, we were able to develop reusable to-go mugs that can contribute to a more sustainable way of life with less packaging waste.” BASF supported Yiwu Midi Technology along the whole process from product development to manufacturing via injection stretch blow molding.

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.

For more information: www.ultrason.basf.com

About BASF's Performance Materials division

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About BASF

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