

News Release

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BASF materializes charging infrastructure solutions with conceptual autonomous wireless charger

- **MobiPOWER - a concept co-created by ZMP, B&Plus and BASF**
- **BASF's Creation Center supports the design of a reliable, durable, and safe charging solution**

Tokyo, Japan – December 2, 2020 – [ZMP](#), [B&Plus](#) and BASF have created MobiPOWER, a conceptual autonomous wireless charger, to meet the growing demand for charging infrastructure solutions.

“Over 75 billion connected devices – such as phones and electric vehicles - will need charging by 2025. MobiPOWER enables us to meet this market demand, with a convenient charging solution that is robust enough to house sophisticated components and sensors combining 5G, IoT and AI capabilities, as well as durable enough for the outdoors,” said Dr. Hisashi Taniguchi, Founder & CEO, ZMP Inc. “BASF expanded my creativity and the possibility of our robots.”

Besides the technical challenges of autonomous charging solutions, MobiPOWER's wireless charging concept also required more advanced material considerations and design support by BASF's Creation Center to enable more reliable and highest safety standards charging.

“There are multiple considerations that go with wireless charging,” said Atsushi Kameda, President & CEO, B & Plus. “By combining our technology and expertise, we are creating a new future.”

Driving new applications by exploring co-development opportunities

BASF's broad portfolio of advanced material solutions have been used in the creation of MobiPOWER.

Ultradur PBT and Ultramid PA are best-in-class materials to be applied for MobiPOWER's radar housing, lidars, protective films and other electrical devices.

- Ultradur used in the wireless charger enables more reliable and highest safety standards charging, owing to its high mechanical and chemical resistance, good weatherability, EMI shielding, and heat insulation.
- Ultradur used in radar housing provides dimensional stability, low warpage, and heat resistance. It is also laser weldable with excellent mechanical properties. As for the lidar, BASF's material solutions provide good mechanical properties, flowability, high rigidity, and impact strength.
- Ultramid and Ultradur in the body housing provide good surface finish, better scratch, chemical resistance, and colorability. BASF's Ultramid Advanced N for MobiPOWER's LED lighting offers good surface finish and aging performance, as well as low moisture absorption. The innovative material solution enables freedom of design as it is moldable and is easy to process and color.

The paint protection film made of Elastollan® thermoplastic polyurethane provides good hydrolysis resistance, excellent weatherability with anti-abrasion performance properties, and scratch resistance behavior. Its properties can be further optimized to enhance their durability, insulation, and chemical resistance.

Partnership to create value for businesses, the environment, and society

“Through this co-creation, we once again demonstrate the potential of BASF's material solutions and competencies in supporting customers to overcome emerging challenges for demanding applications,” said Andy Postlethwaite, Senior Vice President, Performance Materials Asia Pacific, BASF. “Further, the co-creation helps demonstrate our ability to empower greater sustainability with energy efficiency and long-lasting material solutions that improve the shelf life of end products.”

The charger made of high-performance plastics instead of metal is lighter in weight,

hence, consuming less energy. It enables the charger's energy-efficient operation.

For more information on MobiPOWER, click [here](#).

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 2019, the Performance Materials division achieved global sales of €6.06 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 117,000 employees in the BASF Group work on contributing 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 2019. 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.