

News Release

MAHLE introduces plastic transmission support bracket made with BASF's Ultramid® in its first global structural application

- **BASF's simulation technology optimizes loading behavior and enables metal replacement**
- **Full plastic support bracket made with BASF's material solution Ultramid improves Noise, Vibration, and Harshness (NVH) performance**
- **The innovative material solution reduces the weight of automotive structural parts by 50% to enhance energy efficiency**

Seoul, Korea – May 12, 2021 – BASF and MAHLE, a leading international supplier of automotive components for original equipment manufacturers (OEMs), have commercialized a plastic transmission support bracket made with BASF's innovative material solution Ultramid® A3WG10 polyamide (PA). BASF's Ultramid A3WG10 is a specialized high filled material solution for chassis and structural parts. Additionally, BASF supported MAHLE with its proprietary simulation technology Ultrasim®, which effectively helps reduce trial and error during the development phase.

“As the automotive part is exposed to various dynamic and static load while driving, it has to withstand the same load as if it were made of the conventional metal material. We were able to replace the whole structural part from metal to Ultramid, owing to its excellent mechanical properties,” said Sanghae Suh, Director, BU2 KR, MAHLE. “The transmission support bracket is MAHLE's first structural application business launched globally, and the strong support from BASF helps us successfully

penetrate the market.”

Thanks to BASF’s high-performance yet lightweight plastics, the novel plastic transmission support bracket's weight can be reduced by 50% to improve energy efficiency for a more sustainable drive. Additionally, the manufacturing process is simplified with the injection molding process.

Further, Ultramid reduces the NVH of the parts to provide a more comfortable ride due to its excellent damping properties.

“Partnering with MAHLE on this project is a great showcase of our ability to co-create new applications with our customers with advanced material solutions and technical support. We not only provide a customized material solution to meet their specific needs but also support them in realizing their sustainability goals,” said Desmond Long, Vice President, Business Management Transportation, Performance Materials Asia Pacific.

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.