

# News Release

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## Plastics transmission cover by Zhongding Group for Great Wall Motors made with BASF's Ultramid® polyamide 6

- **Contributes to sustainable mobility as the automotive part is 30-40% lighter than its metal equivalent**
- **Ultrasim® optimizes the design of the transmission cover; maximizes strength and performance of the automotive part**
- **BASF's part testing lab includes a new fixture with a higher shooting frequency that speeds up test**

Shanghai, China – May 28, 2021 – Zhongding Group, a Chinese supplier of plastics automotive parts to the global market, now uses BASF Ultramid® polyamide (PA 6) to produce transmission covers for Great Wall Motors.

Lightweighting with BASF's innovative material solutions contributes to sustainable mobility, as it is more energy efficient and lowers CO2 emissions. By replacing metal with Ultramid, the transmission cover's weight can be reduced by 30-40%. The metal-to-plastics initiative also enables cost-efficient manufacturing as the one-step injection process is more straightforward than metal manufacturing. Additionally, Ultramid is an excellent material of choice owing to its high strength, superior toughness, outstanding thermal stability, and laser markability. Further, its properties can be enhanced and optimized as compared to metal.

With BASF's simulation tool Ultrasim®, the part behavior can be accurately predicted subject to various loading and environmental conditions. The CAE tool also helps optimize the transmission cover design for the most efficient use of high-performance and advanced material. It also maximizes the automotive part's

strength and performance. This reduces the number of prototypes required, and accordingly, the development time.

“BASF and Zhongding have been collaborating for over ten years, and we have co-created many new applications. With its CAE competencies, we have optimized design, cost, testing, and material usage. We look forward to further collaboration with BASF, leading to more innovative and sustainable solutions for OEMs such as Great Wall Motors,” said Chunlin Cao, General Manager, Zhongding Group.

As part of the transmission cover development process, BASF introduced a new fixture leading to shorter shooting cycle times (2mins from the previous 10mins per shoot) that speeds up the whole procedure at the test bench. BASF’s parts testing lab was also upgraded with a laser pointer that increases the exact shooting spots.

“We continually enhance BASF’s comprehensive R&D capabilities in the Asia Pacific with new technologies, technical expertise, upgraded material, and part testing services. For our customers in the Asia Pacific, this translates to speeding up time-to-market and competitiveness,” said Desmond Long, Vice President, Business Management Transportation, Performance Materials Asia Pacific, BASF.

#### **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](http://www.plastics.basf.com).

#### **About BASF**

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](http://www.basf.com).