



ILJIN and BASF launch world's first steel-plastic hybrid suspension arm

- **Hybrid suspension arm is made with steel and BASF's polyamide Ultramid®**
- **Arm is 15% lighter than those made with conventional stamping**
- **Better steering and damping performance, for greater passenger comfort**

Seoul, Korea – April 9, 2018 – ILJIN, a leading wheel bearing company based in Korea, has launched the world's first steel-plastic hybrid suspension arm for new electric vehicles, made with a high-performance polymer from BASF. With Ultramid® polyamide (PA6 50% Glass filled grade), the suspension arm is 15% lighter than those made with conventional steel stamping.

The control arm and ball joint combination is an important part of a vehicle's suspension system. Ball joints are spherical bearings that connect the control arms to the steering knuckles. Ball joints made of the engineering plastic Ultramid have significantly reduced friction for better steering performance. Additionally, the damping performance is superior to conventional metal arms, providing greater passenger comfort.

"The cooperation demonstrates how BASF contributes to sustainable mobility. By collaborating with partners such as ILJIN, we aim to bring new lightweight solutions to the market, improving fuel efficiency while providing superior product quality for excellent performance," said Andy Postlethwaite, Senior Vice President, Performance Materials Asia Pacific.

The development of the hybrid suspension arm is made possible with the use of BASF's proprietary CAE (computer aided engineering) tool, Ultrasim®. This tool can help to optimize the component in such a way as to withstand the high levels of stress imposed on the hybrid suspension arm.

"BASF's lightweight solution not only makes the cars more energy-efficient, but



also helps streamline the production with a one-shot injection molding process,” said Y.C. Lee, Executive Director, Head of Research & Development Center, ILJIN.

About ILJIN

Since establishment in 1973, ILJIN has led the global wheel bearing market through growth and innovation. As a global company based in Korea, there are over 32 footprints worldwide with total 6,300 employees. ILJIN has global 1st market share, 31% of 3rd generation wheel bearing for global major automotive OEMs. USD 2.6 billion sales from bearing and chassis components business in 2017. Satisfaction through customer focus, a top-down quality focus based on creative innovation management. Today ILJIN is a world class company that realize the highest customer values. More information on ILJIN is available on the Internet at www.iljin.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The more than 115,000 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 five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of €64.5 billion in 2017. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.

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