

# News Release



## Multiplication made easy

- **Entirely made from polyamide: all-plastic front end carrier in the new Volkswagen Passat and Sharan for the first time**
- **BASF material and service allow the part to be transferred from the Golf platform**
- **Exhibited at BASF's Fakuma stand: front end carriers of Golf VII, Passat and Sharan**

The world's first front end carrier without metal reinforcement has now leapt across the platforms: The Volkswagen Group is using the front end carrier made from the BASF plastic Ultramid® in the new Passat and Sharan models – after the integration in the Golf VII where in 2013 a polypropylene/steel hybrid part was replaced with an all-plastic part made from Ultramid® B3WG8 and with BASF's comprehensive simulation service. In this way, BASF's polyamide 6 helps to ensure that also these two front end carriers are considerably lighter than the previous models and save installation time as well as costs. The globally available polyamide 6 grade is manufactured at certified production sites with process-oriented quality management. BASF thus meets the requirements that car manufacturers have in terms of cost efficiency, reliable supply, and flexibility.

The new Passat has been named the European "Car of the Year" 2015 thanks to its innovations regarding safety, design, and overall quality, among other things. The front end carrier in the Passat is the largest polyamide part in the vehicle and weighs around 2.6 kg. The Ultramid® B3WG8 used is reinforced with 40 percent glass fibers and

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boasts an excellent combination of fatigue and endurance strength. This means that the plastic part shows the correct dynamic stiffness at defined locations and also meets the car maker's specifications for crash acceleration and vibration behavior of the whole front end and radiator system.

Thanks to a modern design, the proportions of the Passat have been interpreted much more dynamically: with a lower body, a longer wheelbase, and larger wheels, among other features. The plastic front end carrier contributes to these innovations by being much more slender than its predecessor and making optimum use of the tight installation space.

### **Simulation with Ultrasim®: specific material data**

The various load situations, some of which are very demanding, were calculated for the Golf VII with the BASF simulation tool Ultrasim®. It was possible to transfer these results to the front end carriers in the Passat and Sharan without any problems because Ultrasim® can be integrated seamlessly into the computing environment of the entire vehicle at the car manufacturer. For this purpose, specific, e.g. crash-relevant material data is available for the plastic which precisely describes the effects of temperature, moisture, and loading rate.

Further information: [www.ultramid.basf.com](http://www.ultramid.basf.com)

### **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 a 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 2014, the Performance Materials division achieved global sales of € 6.5 bn. More information online: [www.performance-materials.basf.com](http://www.performance-materials.basf.com).

**About BASF**

At BASF, we create chemistry – and have been doing so for 150 years. Our portfolio ranges from chemicals, plastics, performance products and crop protection products to oil and gas. As the world's leading chemical company, we combine economic success with environmental protection and social responsibility. Through science and innovation, we enable our customers in nearly every industry to meet the current and future needs of society. Our products and solutions contribute to conserving resources, ensuring nutrition and improving quality of life. We have summed up this contribution in our corporate purpose: We create chemistry for a sustainable future. BASF had sales of over €74 billion in 2014 and around 113,000 employees as of the end of the year. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (AN). Further information on BASF is available on the Internet at [www.basf.com](http://www.basf.com).