

# News Release

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## Functional and trendy – HEIDELBERG relies on Ultramid® housing material for new AMPERFIED wallbox generation

- **Distortion-optimized and weather-resistant, reinforced Ultramid® ensures excellent connectivity**
- **New wallbox generation starts with AMPERFIED wallbox connect.home from HEIDELBERG**
- **Go! Create: Outstanding material expertise enables joint development in record time**

Close partnership, outstanding material expertise and extensive possibilities for component testing by the plastics manufacturer BASF are the basis for the new application made of Ultramid® (PA). HEIDELBERG, a leading manufacturer of charging technology, is using polyamide for the first time as an injection-molded housing in the new Amperfied wallbox connect.home. This further development sets standards in wallbox production and, as an innovative charging solution, enables a major step into the future of electromobility.

### Ultramid® with optimized property profile

HEIDELBERG places high quality demands on BASF plastic in order not to compromise on its properties. As a tough and distortion-optimized material, Ultramid® convinces in relevant tests and ensures an absolutely reliable screw connection with all other components. "We achieve warpage reduction with the help of our databases, product diversity, simulation and experience. This is how

we find the optimal solution for our customers," explains Jochen Seubert, Senior Application Engineer for Electrical and Electronics Applications at BASF.

In close coordination and thanks to the bundling of the competencies of all parties involved – material supplier, mold maker and wallbox manufacturer – the required glow wire class with 650°/675° Celsius (maximum permissible fire time 30 seconds) could be proven in the BASF test laboratories, among other things, on the component. With a variably adjustable charging power of the wallbox from 2.1 kW to 11 kW, this is one of the prerequisites for appropriate certification.

In further tests for component testing, the selected Ultramid® type proved to be particularly impact-resistant, which makes the AmperfiED wallbox connect.home a robust and durable charging solution. The material shows a high resistance to weather or vandalism, with a noble and modern look and touch at the same time.

The Ultramid® grade also meets the requirements for perfect electromagnetic compatibility. There is no risk of damage to the electronics due to excessive charging of the housing.

Transmitting and receiving waves can penetrate the housing material with sufficient strength and enable communication with the myAMPERFIED app for clever control and diagnosis of the wallbox. These requirements for the connectivity of the wallbox were also decisive for the choice of plastic.

### **Use of plastic increases functionality**

The use of plastic in the housing part also greatly simplifies the production of the complete wallbox. Where previously metal had to be laboriously bent and cut, the housing made of Ultramid® bundles all this in one step during injection molding. The painting step is also omitted, as the material with its attractive surface design can be used directly - less complexity with the same value and higher functionality. "Today's Ultramid® grades offer the optimal solution as a housing material in terms of mechanics, electrical insulation, optics and processability and are therefore gladly used by our customers," says Jochen Seubert, BASF, emphasizing the diversity of this material group.

## **Go! Create: A strong partnership**

Decisive for the development time of less than 1.5 years - from the first presentation of materials to market maturity - were the open and trusting manner of interaction and discussion of both development partners from the beginning. In close coordination, material adjustments and tests were carried out and the project was advanced at a brisk pace. "HEIDELBERG AMPERFIED wallboxes have always been characterized by a timelessly designed and robust housing. With the Ultramid® housing, together with BASF, we have managed to transfer the qualities of the first generation to the wallboxes of our new generation and to meet additional requirements, such as connectivity, excellently," explains Ulrich Grimm, Technical Managing Director of Amperfied GmbH.

### **Note:**

#### **Creator Talk at K 2022**

October 19<sup>th</sup>, 2022, 11 a.m.

**"Housing made of Ultramid® in the Amperfied wallbox connect.home"**

#### *Speakers:*

*Alexander Scheu, Heidelberger Druckmaschinen AG*

*Jochen Seubert, BASF SE*

### **BASF at K 2022: Welcome to #ourplasticsjourney!**

Go!Create! At K 2022, we invite everyone to join #ourplasticsjourney! At our booth in hall 5, C21/D21, we will explore new ways in which sustainable action is possible in all phases of the lifecycle of plastics: from how we can produce plastics more sustainably, to how we can use them better, to how we can discover new solutions to close the loop. Solving these challenges is a journey that we are all on together. At K 2022, we want to make that journey go faster. K is the #1 trade fair for plastics and rubber and will take place in Düsseldorf, Germany, from October 19 – 26, 2022. Visit [www.plastics.basf.com/K2022](http://www.plastics.basf.com/K2022).

### **About BASF**

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 111,000 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 comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €78.6 billion in

2021. 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).

### **About Amperfied GmbH**

Amperfied GmbH, based in Walldorf, is a 100% subsidiary of Heidelberger Druckmaschinen AG (HEIDELBERG). Founded in April 2022, it continues the parent company's commitment to electromobility since 2014 under a new name. With comprehensive know-how in the fields of power electronics and software, Amperfied GmbH positions itself with innovative, customer-oriented and future-proof charging solutions for domestic needs and public spaces. The aim is to develop into a technology leader for an emission-free and livable future and to actively shape mobility and energy supply. [www.amperfied.de](http://www.amperfied.de)