

# Press Release

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## **Formnext 2021: Forward AM to Showcase Industrial 3D Printing Innovations Including Helmets, Bike Saddles and Vehicle Seats**

- » **Enlarged Flexible Filament Portfolio, cost-competitive metal filaments, and high-strength photopolymers**
- » **New smart lattice designs with polymer powders and Virtual Engineering Services enable fully customized NFL helmets, bike saddles and vehicle seats**
- » **Broadened post-processing expertise integrates chemical smoothing and advanced UV primers**

Forward AM, the BASF 3D Printing Solutions GmbH brand, will be exhibiting at Formnext 2021 in Frankfurt am Main, Germany from November 16 – 19 at booth D59 in Hall 12.1. Visitors to the Forward AM booth can discover one of the world's largest portfolios of 3D printing materials and application technologies. Forward AM will also be showcasing its Virtual Engineering, smart lattice, and post-processing solutions for customers across multiple industry sectors.

### **Larger Flexible Filament Portfolio, cost-beating metal filaments, high-strength photopolymers**

In 2021 Forward AM broadened its material portfolio to meet the demands of leading manufacturers ranging from the medical and dental sector, through automotive to the consumer-goods industry.

The booth's Consumer Area showcases Forward AM's new Flexible Filament Portfolio comprising Ultrafuse® TPU 95A, TPU 64D and TPS 90A: These advanced materials simplify and accelerate the production of flexible and soft applications on FFF printers, such as the grips and controls of an infrared thermometer on show at the booth.

In the Industrial Area of the Forward AM booth, visitors can see how Ultrafuse® 17-4 PH, the new cost-competitive and extremely corrosion-resistant metal filament, delivered a metal gripper for the German WKW Group.

Forward AM has also launched a new series of rigid daylight resins together with its partner Photocentric: These include Ultracur3D® EPD 2006, ideally suited for large-scale automotive and transportation applications such as the caravan panels exhibited in the Transportation Area of the booth.

Visitors can also look forward to discovering new additions to the Ultrasint® powder portfolio such as a TPU specially tailored to consumer applications as well as a translucent polypropylene with excellent processability. A wide range of scalable applications across all key industries will be showcased in collaboration with major machine manufacturers.

### **Virtual Engineering Solutions: Smart lattice designs to enable fully customized NFL helmets**

Lattice designs are a major challenge to traditional manufacturing methods – but are easy to produce with Additive Manufacturing. To help industry benefit from this, Forward AM expanded its services to offer a dedicated Lattice Engineering service based on Ultrasim®, the Virtual Engineering suite by BASF. For instance, Forward AM experts enabled Xenith to prototype helmets with a fully customized lattice that can be tailored to individual players' head-shapes, cushioning, and protection needs. Formnext 2021 visitors can touch and feel the NFL Challenge prototype helmet printed with Ultrasint® TPU powder in Forward AM's Consumer Area.

As a parallel highlight they can also experience a 3D printed next-generation bike saddle developed together with Hyperganic, atum3D and InnovationLab: This demonstrates how smart lattices printed with the robust elastic Ultracur3D® EL 150 enable fully personalized cushioning and support.

### **Post-processing: Chemical smoothing and a new UV primer**

The Forward AM post-processing portfolio has grown to include advanced chemical smoothing and coating solutions and integrates a comprehensive color portfolio and the new Ultracur3D® UV Adhesion Promoter. This portfolio of industry-leading technologies now enables 3D printed components with high-end surfaces – a key competitive edge in the automotive exteriors sector, as demonstrated by the caravan body panel showcased at the fair. Automotive interior applications will also benefit from these post-processing solutions: Formnext 2021 visitors can experience a next-generation automotive seat developed in a joint project with HP and Oechsler. This seat can be fully customized for shock absorption and comfort thanks to its smart lattice design and high-end finishing delivered by Forward AM's latest post-processing solutions.

### **Take a 3D coffee break!**

Forward AM booth visitors can experience the comfort of the 3D printed chairs printed with Ultrasint® TPU powder developed by our partner Oechsler, surrounded by a large 3D wall divider printed on a BigRep machine. While enjoying a coffee, visitors are invited to learn about Forward AM's new 3D printing process for food contact applications. This enabled the 3D4U joint project by Replique and Miele, which sells 3D printed accessories and food-contact parts such as coffee clips via its dedicated online shop.

We are looking forward to welcoming you at Formnext 2021 at our booth D59 in hall 12.1.

### **About BASF 3D Printing Solutions**

BASF 3D Printing Solutions GmbH, headquartered in Heidelberg, Germany, is a 100% subsidiary of BASF New Business GmbH. It focuses on establishing and expanding the business under the Forward AM brand with advanced materials, system solutions, components and services in the field of 3D printing. BASF 3D Printing Solutions is organized into startup-like structures to serve customers in the dynamic 3D printing market. It cooperates closely with the global research platforms and application technologies of various departments at BASF as well as with research institutes, universities, startups, and industrial partners. Potential customers are primarily companies that intend to use 3D printing for industrial manufacturing. Typical industries include automotive, aerospace, and consumer goods. For further information please visit: [www.forward-am.com](http://www.forward-am.com).

## **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).