

# Press Release

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## **Forward AM Launches Ultrafuse® 17-4 PH Material for Metal 3D Printing**

- » **Ultrafuse® 17-4 PH enables safe and cost-efficient printing of metal parts in 17-4 stainless steel on common FFF printers**
- » **New filament is especially developed for applications requiring high hardness and mechanical strength for various industries**
- » **Expanded Ultrafuse® metal filament portfolio contributes to cost-competitive metal Additive Manufacturing**

With Ultrafuse® 17-4 PH Forward AM is launching an innovative filament comprising metal powder with a polymer binder for Fused Filament Fabrication (FFF). It enables the safe, easy and cost-efficient production of metal parts for prototypes, metal tooling, and functional metal parts in FFF, the most accessible 3D printing process. After the subsequent industry-standard debinding and sintering process, the final 3D printed part is 17-4 stainless steel.

With its high mechanical strength and hardness, the new 3D printing filament is ideally suited for a wide range of applications such as tooling, jigs and fixtures, and functional prototypes. Good corrosion resistance and the ability to be fully heat treated to high levels of strength and hardness make Ultrafuse® 17-4 PH a stand-out choice for a range of industries including petrochemicals, aerospace, automotive, and medical.

“Ultrafuse® 17-4 PH is an outstanding result of our strong R&D commitment. We filamented more than 10 different metals from titanium to tool-grade steels, and several alternative materials to print support structures within this year. Going forward we will continue to introduce the new filaments that the market and our customers demand,” says Firat Hizal, Head of Metal Systems Group, BASF 3D Printing Solutions.

In 2019, Forward AM launched the company’s first metal filament with Ultrafuse® 316 L. By adding Ultrafuse® 17-4 PH to its materials range, Forward AM now offers an even stronger material at a competitive price.

“We have already established a distribution network that collaborates closely with our debinding and sintering service partners in different regions, and can thus deliver an integrated end-to-end solution. We are proud to extend our portfolio with Ultrafuse® 17-4 PH,” explains Firat Hizal.

Ultrafuse® metal filaments are specifically developed to work on all common open-source Fused Filament Fabrication (FFF) printers from beginner to industrial level, making it one of the easiest and most cost-effective technologies in metal Additive Manufacturing. FFF enables the production of hollow structures and lightweight designs. Additionally, users benefit from the traditional advantages of a non-oxidizing metal, such as corrosion resistance and outstanding strength.

For more information on Forward AM’s Ultrafuse® portfolio, visit our website.



Photo: The new metal filament Ultrafuse® 17-4 PH. (Source: Forward AM).

### **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 117,000 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 six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care, and Agricultural Solutions. BASF generated sales of €59 billion in 2019. 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).