Press release

# Evonik unveils flame retardant PA12 and carbon black embedded 3D-printable powders at Frankfurt trade show

November 14, 2024

**Main press contact**
**Isabel Ramor**
Head of Market Communications
High Performance Polymers
Phone +49 2365 49-9878
isabel.ramor@evonik.com

**Alternative press contact**
**Nina Peck**
Head of Market Communications
Smart Materials
Phone +49 201 177-2223
nina.peck@evonik.com

- Evonik launches new INFINAM® powders with carbon black encapsulated in the core-shell
- Evonik and HP Inc. release new, jointly developed 3D-printable, halogen-free flame retardant material with 50% reusability
- Carbon black encapsulated INFINAM® powders to be directly available from Evonik

**Frankfurt am Main, Germany.** Evonik is unveiling its latest innovations in PA12 polymer applications for 3D printing at Formnext 2024, the highlight exposition and convention for the world's additive manufacturing community.

Most notably on display will be the company's PA12 based INFINAM® 6013 P and INFINAM® 6014 P 3D-printable powders, which through a feat of engineering, possess a relatively substantial amount of carbon black in the core of each particle.

Produced through the precipitation process, these carbon black powders are specially designed for powder bed fusion techniques like SLS (Selective Laser Sintering), and offer high flowability and homogenous sintering. Additionally, the high core-shell carbon black content allows for true pigmentation uniformity, minimizes visibility of surface abrasion and wear, as well as provides elevated resistance to ultraviolet rays and greater isotropic performance.

"These properties make our carbon black powder an ideal material for producing 3D-printed items destined for use outdoors – especially in applications that need to withstand an elevated exposure to heat and light, such as those found in the aerospace and automotive industry," says Arnim Kraatz, director of Powder Bed Fusion at Evonik.

To better serve the needs of this specialized customer base, the carbon black embedded INFINAM® 6013 P and INFINAM® 6014 P powders will be available for direct purchase from Evonik.

**Evonik Industries AG**
Rellinghauser Straße 1-11
45128 Essen
Germany
Phone +49 201 177-01
www.evonik.com

Supervisory Board
Bernd Tönjes, Chairman
Executive Board
Christian Kullmann, Chairman
Dr. Harald Schwager, Deputy Chairman
Maike Schuh, Thomas Wessel

Registered Office is Essen
Register Court Essen Local Court
Commercial Registry B 19474

Also featured at Formnext will be the product launch of HP 3D HR PA12 FR, a robust, PA12-based 3D-printable polymer. Developed jointly by Evonik and well-known additive manufacturing technology powerhouse, HP Inc., the innovative powder is halogen-free, flame retardant, and remarkably features 50% reusability.

“We are very excited to be introducing the new HP 3D PA12 FR, a halogen-free flame-retardant polymer enabled by Evonik. Our long-term partnership is key to developing innovative solutions to continue growing the industry. This innovative material, which is 50% reusable, enables cost-effective production of high-quality parts and is poised to be a breakthrough in 3D printing, paving the way for scalable applications in consumer electronics,” says François Minec, VP and Global Head of 3D Polymers at HP Inc.

“We are proud of the fruits of this successful partnership with HP Inc., as it is the latest application of an encapsulation technique enabled by Evonik’s specially pioneered precipitation method,” says Dominic Stoerkle, head of Evonik’s High Performance Polymers’ Long Chain Polyamides product line. “Partnerships like these help Evonik continue to develop innovative technology that put customers at the center of our business.”

Other key properties include the powder’s 50% reusability, which leads to less waste, improves the efficiency of the manufacturing process, and lowers the product’s overall environmental impact. Additionally, items made from HP 3D HR PA12 FR are cost-effective and possess exceptional surface aesthetics, facilitating the finishing process.

For excellent customer reach, the 3D-printable powder will be available directly from HP Inc. and compatible with HP JF 5600 Series 3D Printing Solutions. Similar to other INFINAM PA12 powders from Evonik, HP 3D HP PA12 FR is produced using 100% renewable energy sources at the chemical site in Marl, Germany.

During the Formnext 2024 trade show, held from 19 to 22 November in Frankfurt am Main, Germany, Evonik experts will also

be on hand in Hall 12.1, booth C39 to showcase INFINAM® TPA 4006 P, a PA12-based powder optimized for SLS (Selective Laser Sintering) technologies. Items printed with this material feature excellent rebound behavior and outstanding durability, making them ideal for a variety of consumer goods applications such as footwear.

# # #

**Company Information**
Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €15.3 billion and an operating profit (adjusted EBITDA) of €1.66 billion in 2023. Evonik goes far beyond chemistry to create innovative, profitable, and sustainable solutions for customers. About 32,000 employees work together for a common purpose: We want to improve life today and tomorrow.

**About Smart Materials**
The Smart Materials division includes businesses with innovative materials that enable resource-saving solutions and replace conventional materials. They are the smart answer to the major challenges of our time: environment, energy efficiency, urbanization, mobility and health. The Smart Materials division generated sales of €4.46 billion in 2023 with more than 8,100 employees.

**Disclaimer**
In so far as forecasts or expectations are expressed in this press release or where our statements concern the future, these forecasts, expectations or statements may involve known or unknown risks and uncertainties. Actual results or developments may vary, depending on changes in the operating environment. Neither Evonik Industries AG nor its group companies assume an obligation to update the forecasts, expectations or statements contained in this release.