

# News Release

P317/24e  
November 12, 2024

## **BASF to build additional production capacity for X3D<sup>®</sup> catalyst shaping technology in Ludwigshafen**

- **X3D<sup>®</sup> technology produces catalysts with optimal shapes to maximize performance and efficiency while minimizing energy consumption**
- **Capacity needed to meet high market demand for X3D products**
- **First-of-its-kind plant scheduled for 2026 producing catalysts on industrial scale, driving green transformation projects**

BASF announced today that it will invest in additional production capacity for its X3D<sup>®</sup> technology, a new additive manufacturing technology for catalysts based on 3D printing. The plant will produce catalysts on an industrial scale and is expected to be operational in 2026.

The X3D technology represents a transformative leap in catalyst design and production. Catalysts produced using this technology are not only mechanically robust but also feature an open structure, which significantly reduces pressure drop across reactors and increases surface area. These advancements translate into improved catalyst performance, helping customers to achieve greater efficiency in their plants. They can benefit from an increased reactor output, higher product quality and a lower energy consumption, contributing to the customer's green transformation goals.

One of the key benefits of the X3D technology is its versatility. It can be applied to a wide array of catalytic materials, including both precious and non-precious metal catalysts, as well as carriers. This flexibility allows BASF to customize catalysts

according to specific customer requirements by fine-tuning parameters such as infill patterns, fiber diameters, and orientations.

"BASF remains committed to leading the charge in innovation within the chemical catalysts industry. X3D represents a step-change advancement in technology for catalyst production. We are proud to give our customers new opportunities to boost the performance of their production and at the same time reduce their carbon footprint," said Detlef Ruff, Senior Vice President, process catalysts at BASF.

"BASF has successfully operated commercial plants using X3D catalysts for several years, achieving remarkable results. This technology is poised to shape the future for both green and traditional value chains with unparalleled efficiency and improved speed-to-market," said Jens Perregaard, Vice President, custom catalysts & innovation at BASF.

For more information, please visit our webpage [www.chemical-catalysts-and-adsorbents.basf.com/X3D](http://www.chemical-catalysts-and-adsorbents.basf.com/X3D).

#### **About BASF process catalysts**

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts and adsorbents, refinery catalysts and custom catalysts. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions. Customers from a variety of industries including Automotive & Transportation, Chemicals, Plastics or Energy & Resources benefit from our innovative solutions. Further information on BASF's Catalysts division is available on the Internet at [www.chemical-catalysts-and-adsorbents.basf.com](http://www.chemical-catalysts-and-adsorbents.basf.com).

#### **About BASF**

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 112,000 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 €68.9 billion in 2023. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at [www.basf.com](http://www.basf.com).