

News Release

P204/20e
May 20, 2020

BASF introduces ZEAL™ Fluidized Catalytic Cracking (FCC) additive to deliver more propylene for refiners

- **Superior propylene yield and selectivity**
- **Minimizes activity dilution to FCC catalyst**
- **Higher activity from increased zeolite cracking sites**

BASF announces the commercial launch of ZEAL™ which is a new Fluid Catalytic Cracking (FCC) additive product designed to enhance the production of light olefins in FCC units that process resid or gasoil feedstocks. ZEAL is the latest product development that will enable refiners to quickly respond to the increasing shift to petrochemical feedstocks. ZEAL has been optimized to deliver superior propylene yields while maintaining the base catalyst performance.

ZEAL commercial trials have confirmed its ability to deliver high propylene selectivity and yields. This innovative technology from BASF enhances performance through the higher content of zeolitic active sites in a new propylene FCC additive. Successful applications have demonstrated ZEAL's ability to provide operating flexibility as refiners increasingly shift toward a crude-to-chemicals configuration in the future.

Detlef Ruff, Senior Vice President Process Catalysts at BASF, says: "The introduction of ZEAL shows that we continuously innovate and introduce new products that address refineries' needs. We are confident that the benefits of this

new product will bring our customers improvements in propylene yields, potentially contributing to the refineries' profitability."

"The refining market, and our customers, increasingly focus on the need to support conversion of crude to chemicals," says Jim Chirumbole, Vice President Refining Catalysts at BASF. "ZEAL delivers high propylene yields to help our customers make more for the market."

About BASF's Catalysts Division

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.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.