



The Chemical Company

## Product Data Sheet

# Flex-Tec™

## Fluid Catalytic Cracking (FCC) catalyst for severe resid applications

BASF Catalysts proudly introduces Flex-Tec, an FCC catalyst designed for the most severe residual feed operations.

### Technology

Based on our award-winning and commercially proven DMS (Distributed Matrix Structures) technology platform, Flex-Tec is designed to provide enhanced diffusion of feed molecules to pre-cracking sites that are located on the external, exposed surface of highly dispersed zeolite crystals. The feed pre-cracks on the zeolite itself, rather than on an active amorphous matrix material, providing improved reaction selectivities. Liquid yields are improved via selective bottoms conversion.

The optimized porosity of the DMS technology platform allows high bottoms conversion with low coke, and higher yields of valued gasoline and light olefin products. This is achieved by reducing mass transfer limitations that are present in all FCC operations.

Flex-Tec also incorporates BASF Catalysts' MaxiMet technology, designed to improve the passivation of contaminant metals and achieve state-of-the-art metals tolerance. MaxiMet minimizes non-selective secondary metals reactions that result in increased coke and gas formation.

Flex-Tec combines the benefits of DMS technology and MaxiMet technology in a single product to deliver coke selective deep bottoms conversion and metals resistance.

### Applications

Flex-Tec is designed for excellent activity maintenance and low contaminant coke and gas in operations that process severe residual feedstocks.

- Total metals (Ni+V) > 5000 ppm
- Iron contamination
- Improving liquid yields with coke and gas selectivity improvements

### Typical Properties\*

#### Chemical Composition

Al <sub>2</sub> O <sub>3</sub> , wt. %	37–43
Na <sub>2</sub> O, wt. %	0.25–0.40
Surface area m <sup>2</sup> /g	225–330

#### Density

ABD, g/cm <sup>3</sup>	0.71–0.86
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#### Particle Size

APS, μm	75
0–40, %	12

\* Properties can be customized to individual refiners' needs. These are the typical ranges that can be achieved.

## About BASF

BASF Catalysts is the Global Leader in Catalysis, and is part of BASF - The Chemical Company. By leveraging our industry-leading R&D platforms, BASF's global research infrastructure and our passionate pursuit of innovation, we develop unique, proprietary technologies that drive customer success. Our catalytic solutions cover a wide range from chemical and refinery processes, to adsorbents and mobile emissions. In addition, we offer broad experience in trading base and precious metals.

### BASF - The Chemical Company

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