



The Chemical Company

## Performance Profile

# Flex-Tec™

## Fluid Catalytic Cracking (FCC) catalyst cracks the bottom of the barrel for enhanced performance in resid FCC

Flex-Tec is a premium resid FCC catalyst based on the DMS (Distributed Matrix Structures) technology platform. It is designed to provide excellent coke selectivity and metals tolerance, leading to high conversion and liquid yields with the heaviest, most highly contaminated resid FCC feeds.

### Refiner's Objectives

- Increase conversion and gasoline yield.
- Maintain or increase feed rate.
- Maintain catalyst makeup rate.
- Maintain or reduce coke yield and regenerator temperature.

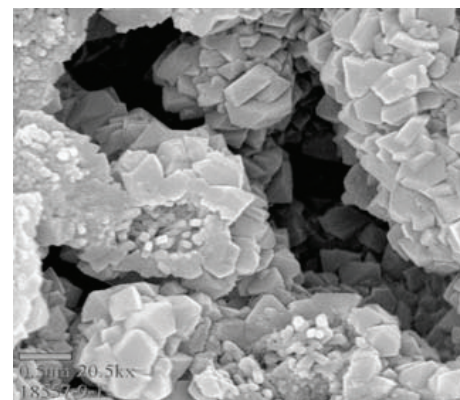
### Results

Flex-Tec catalyst performance exceeded expectations.

- Feed rate increased 9%
- Conversion increased 6 lv%, C3+ liquid increased 4 lv%

- Gasoline increased by 3000 b/d
- HCO + slurry reduced by 2000 b/d
- Regenerator temperature and coke yield reduced

This refiner was so impressed with the performance of Flex-Tec that they immediately began a second trial in another FCC unit in their system.



Optimized porosity for heavy molecule diffusion

### Flex-Tec refinery trial results

Changes from baseline operation:

Feed rate, b/d	+9%
Catalyst makeup, t/d	no change
Conversion	+6 lv%
C3 + liquid yield	+4 lv%
Gasoline	+3000 b/d
HCO + slurry	-2000 b/d
Regenerator temperature	-30°F
Coke yield	-0.4 wt%

## 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

### BASF Catalysts Headquarters

BASF Catalysts LLC  
25 Middlesex/Essex Turnpike  
P.O. Box 770  
Iselin, NJ 08830-0770  
Tel: +1-732-205-7188  
Fax: +1-732-205-7725  
Email: [refining-catalysts@basf.com](mailto:refining-catalysts@basf.com)

### Asia Sales Office

BASF South East Asia Pte Ltd  
7 Temasek Boulevard  
#35-01 Suntec Tower One  
Singapore 038987  
Tel: +65-6337-0330  
Fax: +65-6398-5104  
Email: [refining-catalysts@basf.com](mailto:refining-catalysts@basf.com)

### Europe, Middle East, Africa Sales Office

BASF plc  
Earl Road, Cheadle Hulme  
P.O. Box 4  
Cheadle, CHESHIRE, SK8 6QG, UK  
Tel: +44-(0)-161-488-5156  
Fax: +44-(0)-161-485-5487  
Email: [refining-catalysts@basf.com](mailto:refining-catalysts@basf.com)

For more information, contact the BASF Catalysts office in your region or visit

[www.catalysts.basf.com/refining](http://www.catalysts.basf.com/refining)

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