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 Distributed Matrix Structures (DMS) technology providing high conversion and liquid yields even with heavy, highly contaminated resid FCC feeds

Introduction

An FCC unit processing heavy resid feedstock wants to increase conversion and gasoline yield while maintaining or increasing feed rate. Flex-Tec is designed to provide excellent coke selectivity and metals tolerance for the unit’s desired conversion and gasoline increase. It can also reduce coke yield and regenerator temperature while maintaining catalyst makeup rate. For these reasons, Flex-Tec is chosen to meet this unit’s needs.

Results

Flex-Tec performance exceeded expectations and the refiner has already begun a second trial in another of its FCC units. Due to addition of Flex-Tec:

- Feed rate increased 9%
- Conversion increased 6 lv%; C+ liquid increased 4 lv%
- Gasoline increased by 3000 bpd
- HCO + slurry reduced by 2000 bpd
- Regenerator temperature and coke yields reduced

<table>
<thead>
<tr>
<th>Changes from baseline operations</th>
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<tbody>
<tr>
<td>Feed rate, bpd</td>
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<tr>
<td>Catalyst makeup, tpd</td>
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<tr>
<td>Conversion, lv%</td>
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<tr>
<td>C+ liquid yield, lv%</td>
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<tr>
<td>Gasoline, bpd</td>
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<tr>
<td>HCO + slurry, bpd</td>
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<tr>
<td>Regenerator temperature, °F</td>
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<td>Coke yield, wt%</td>
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About Us

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.

BASF - We create chemistry

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BF-8024 Rev. 06/18