NaphthaMax III®

Fluid Catalytic Cracking (FCC) catalyst for increased gasoline yields and best-in-class coke selectivity from vacuum gas oil feeds

BASF’s NaphthaMax III produces higher yields of valued gasoline and light olefin products for vacuum gas oil feed refiners

**Premium Technology**

NaphthaMax III utilizes targeted process improvements that optimize rare earth addition and calcination sequences giving it more uniform catalyst properties. This makes NaphthaMax III highly coke-selective with increased zeolite hydrothermal stability meaning higher unit activity and increased light olefin selectivity.

Its optimized porosity also reduces the mass transfer limitations present in FCC units, providing refiners with improved gasoline yields and less over-cracking to coke or dry gas.

**Applications**

NaphthaMax III is the ideal catalyst for refiners looking to expand their windows of operability, offering greater flexibility in choosing FCC operating parameters. NaphthaMax III is particularly well-suited for use in the following scenarios:

- Units requiring the highest degree of coke selectivity for optimum operation
- Units operating at or near air blower and/or wet gas limitations seeking additional means to increase unit profitability
- Units processing high degrees of coker-based feedstocks at low to moderate metals
- Units processing gas oil feedstocks wanting the lowest bottoms-to-coke ratios

### Typical Properties

<table>
<thead>
<tr>
<th>Chemical Composition</th>
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<tbody>
<tr>
<td>Al₂O₃, wt %</td>
<td>37-43</td>
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<tr>
<td>Na₂O, wt %</td>
<td>0.17-0.29</td>
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<table>
<thead>
<tr>
<th>Surface Area</th>
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<tbody>
<tr>
<td>TSA, m²/g</td>
<td>250-350</td>
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<table>
<thead>
<tr>
<th>Density</th>
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<tbody>
<tr>
<td>ABD, g/cm³</td>
<td>0.65-0.85</td>
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<table>
<thead>
<tr>
<th>Particle size</th>
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<tbody>
<tr>
<td>APS, µm</td>
<td>75</td>
</tr>
<tr>
<td>0-40, %</td>
<td>12</td>
</tr>
</tbody>
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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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