

Fourte[®]

Innovative Fluid Catalytic Cracking (FCC) Catalyst for butylenes maximization

Fourte[®] maximizes butylenes production in the FCCU and increases gasoline octane while preserving catalyst activity.

Technology

Fourte is BASF's butylene maximization FCC catalyst developed on the novel Multiple Framework Topologies (**MFT**) technology. The technology behind Fourte delivers high selectivity toward C4 olefins by optimizing performance across five key factors: rare earth, activity, acid site density, zeolite/matrix ratio and inclusion of a butylene-selective zeolite framework.

Fourte takes advantage of optimized distribution of acid sites, which tempers hydrogen transfer reactions to increase LPG selectivity and butylenes production.

Traditional catalysts suffer from an activity penalty when acid site density is reduced. In contrast, **Fourte** maintains catalytic activity when maximizing butylenes yield and gasoline octane.

Applications

Fourte is a preferred catalyst for refiners aiming to increase profitability via:

- Butylenes maximization
- Higher LPG yields
- Increased gasoline octane
- Improved alkylate yield

Catalyst Properties*

Chemical Composition

Al ₂ O ₃ , wt%	36-48
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Na ₂ O, wt%	0.2-0.25
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REO, wt%	0.5-2.5
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Surface Area

TSA, m ² /g	230-330
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Density

ABD, g cm ⁻³	0.65-0.85
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Particle size

APS, μm	75
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0-40, %	10
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* Properties can be customized to individual refiners' needs. These are the typical ranges.

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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