ProCat®

Fluid Catalytic Cracking (FCC) additive for the reduction of regenerator afterburn and CO emissions.

BASF CO combustion promoter additives represent a unique technological solution, which allows refiners to achieve both operating and environmental objectives.

Rising to the Challenge of CO Emissions

Uncontrollable thermal CO afterburn in FCC regenerators results in inefficient oxygen utilization limiting the regenerator efficiency. It can also lead to localized heat excursions or “hot spots” that severely affect metallurgy and the stability of the FCC catalyst. Use of a CO combustion promoter additive allows for the catalytic conversion of CO to CO$_2$. This lower energy catalytic route eliminates hot spots and carbon monoxide emissions.

BASF delivers the key factors critical to providing a highly efficient CO combustion promoter product. BASF ProCat® high-density CO promoter particles are more likely to promote CO combustion within the regenerator dense phase, reducing the breakthrough of CO to the dilute phase where CO combustion contributes to afterburning. Additionally, all BASF CO promoters have extremely favorable attrition resistance for maximum retention of the valuable platinum, which provides the CO conversion activity.

High Performance and Stability

Additional benefits are achieved by matching ProCat with BASF’s Distributed Matrix Structures™ (DMS)-based FCC catalysts. The high activity of DMS-based FCC catalysts diminishes or eliminates the reduced overall activity that is caused by the dilution effect of additives addition to FCC catalysts from other suppliers.

Typical Properties

<table>
<thead>
<tr>
<th></th>
<th>Silica-Alumina</th>
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</thead>
<tbody>
<tr>
<td><strong>Support</strong></td>
<td></td>
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<tr>
<td><strong>Chemical Composition</strong></td>
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<tr>
<td>Platinum, wppm</td>
<td>350-750</td>
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<tr>
<td><strong>Density</strong></td>
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<tr>
<td>ABD, g/cm$^3$</td>
<td>1.0</td>
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<tr>
<td><strong>Particle size</strong></td>
<td></td>
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<tr>
<td>APS, μm</td>
<td>88</td>
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<tr>
<td>0-40, %</td>
<td>5</td>
</tr>
</tbody>
</table>

Packaging

- 2, 5, or 10 lb bags in pails or drums
- 40 lb pails
- 55 gallon drums
- 1 ton super sacks
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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