DD-831

Promoted Claus catalyst spheres

BASF DD-831 is a high surface area activated alumina promoted to enhance the activity of Claus and related reactions. BASF DD-831 is available as 3/16 inch spheres.

Product Applications and Benefits

1. BASF DD-831 promoted alumina shows improved resistance to deactivation from sulfation in all phases of the Claus process.

2. BASF DD-831 promoted alumina is especially beneficial in giving greatly improved COS decomposition in the first catalytic converter. With non-promoted alumina, the conversion of COS will gradually decrease with time, but high reactivity will remain for much longer periods of time with BASF DD-831. It may be used either in the whole converter bed or in a half bed configuration. If used only in the half bed, it should be placed in the bottom half for maximum effect. The upper section of the bed can be filled with BASF DD-431, a high activity, non-promoted alumina.

3. BASF DD-831 activated alumina may be used in a second or third reactor to give enhanced resistance to deactivation from sulfation. This is highly recommended when direct reheat systems are being used. The inherent resistance of this product can prolong the effective catalyst life by a factor of 3 when oxygen regress causes accelerated sulfation.

Available Packaging

- 2000 lb super sacks

Chemical Composition (%)

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al₂O₃ + promoter</td>
<td>93</td>
</tr>
<tr>
<td>LOI (250-1100°C)</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Area, m²/g</td>
<td>320</td>
</tr>
<tr>
<td>Total Pore Volume, cc/g</td>
<td>0.50</td>
</tr>
<tr>
<td>Macroporosity &gt; 750 Å, cc/g</td>
<td>0.1</td>
</tr>
<tr>
<td>Crush Strength, lbs (kg)</td>
<td>30 (14)</td>
</tr>
<tr>
<td>Abrasion Loss, wt %</td>
<td>0.5</td>
</tr>
<tr>
<td>Bulk Density, lbs/ft³ (kg/m³)</td>
<td>43 (690)</td>
</tr>
</tbody>
</table>
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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