

DD-431

Activated alumina spheres

BASF DD-431 is a high surface area activated alumina sphere with tailored pore size distribution to enhance Claus reaction activity through increased diffusion rates and surface activity.

Product Applications

DD-431 is an excellent Claus catalyst for common Sulfur Recovery Units (SRU) including oxygen enriched Claus units. It is designed for use in all beds for high activity conversions of H₂S/SO₂ and for conversion of COS and CS₂ in the first converter. It is available in nominal sizes of 3/16" and 1/4" spheres.

The custom-tailored pore structure includes optimum levels of micro, meso and macropores, thereby providing maximum access to active sites while minimizing sulfur deposition (condensation) during normal operations. DD-431 meso and macropores aid in the diffusion of the reactants into, and the large sulfur molecules away from, active sites. DD-431 has ideal pore distribution for use in sub-dewpoint tail gas processes such as CBA, MCRC and Sulfreen.

DD-431 is particularly well suited for use in sulfur recovery processes operated near or below the sulfur dewpoint. The third reactor of a Claus unit can be operated closer to the sulfur dewpoint to enhance sulfur recovery.

Physical Properties	3/16" (4.8 mm)	1/4" (6.4 mm)
Surface Area, m ² /g	375	360
Total Pore Volume, cc/g	0.55	0.55
Macroporosity > 750 Å, cc/g	0.18	0.15
Crush Strength (5 mesh), lbs (kg)	30 (14)	50 (23)
Abrasion Loss, wt %	0.4	0.4
Bulk Density, lbs/ft ³ (kg/m ³)	40 (641)	40 (641)

*These indicative properties do not represent process capabilities nor specifications.

Packaging

- 2000 lb (907 kg) super sacks
- 300 lb (136 kg) drums

About Us

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The division's portfolio also includes battery materials and recycling solutions, as well as environmental catalysts and metal solutions. Customers from a variety of industries including Automotive & Transportation, Chemicals, Plastics or Energy & Resources benefit from our innovative solutions. Further information on BASF's Catalysts division is available on the Internet at www.catalysts.basf.com.

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