

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 Sulfur Recovery Units (SRU) including oxygen enriched SRU. Designed for use in all beds where high activity conversion of H_2S/SO_2 is required. Excellent conversion of COS and CS_2 will also be achieved in the first converter. It is available in nominal sizes of 3/16" spheres.

The custom-tailored pore structure includes an optimized level of meso and macropores, thereby providing maximum access to active sites while minimizing surface area loss to capillary filling. DD-431 meso and macropores aid in the diffusion of the reactants into, and the large sulfur molecules out of pores, keeping active sites clear. DD-431 has ideal pore distribution for use in sub-dewpoint tail gas processes such as CBA, MCRC and Sulfreen, where meso porosity is important.

DD-431 is particularly well suited for use in sulfur recovery processes operated near or below the gas sulfur dewpoint. A third converter or a subdewpoint tailgas treater that can be operated at or below the sulfur dewpoint to enhance conversion and recovery benefit when the catalyst pore structure is open enough to allow for easy flow of elemental sulfur in and out of the pore structure.

Physical Properties	3/16" (4.8 mm)
Surface Area, m ² /g	375
Total Pore Volume, cc/g	0.55
Macroporosity > 750 Å, cc/g	0.18
Crush Strength (5 mesh), lbf (kgf)	30 (14)
Abrasion Loss, wt %	0.4
Bulk Density, lbs/ft ³ (kg/m ³)	40 (641)
Al ₂ O ₃ (volatile free), wt %	>99 %

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

Packaging

2000 lb (907 kg) super sacks

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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