

Ti-1100e

High performance titania catalyst

BASF Ti-1100e titania catalyst is designed for improved conversion of sulfur compounds in the Claus process.

Product Applications

When using a titanium dioxide (titania) catalyst like BASF Ti-1100e, the Sulfur Recovery Unit (SRU) operator is seeking to achieve maximum sulfur component species conversion over the run life of the catalyst.

Units operating with high hydrocarbons and/or carbon dioxide (CO₂) in the feed will have elevated levels of carbonyl sulfide (COS) and carbon disulfide (CS₂) in the feed to the first converter. Activated alumina catalyst like BASF DD-431 will convert these species, but only at elevated operating temperatures which negatively impacts conversion of the two main feed components, hydrogen sulfide (H₂S) and sulfur dioxide (SO₂). By adding Ti-1100e to the first converter, operating temperatures can be lowered and the highest possible conversions of all sulfur species (H₂S, SO₂, COS & CS₂) can be achieved. Normally used in conjunction with BASF DD-431, the configuration needed to optimize recoveries can be provided by BASF's Technical Managers.

Whether it's achieving higher recoveries without capital expenditures, reducing stack emissions though higher COS/CS₂ conversion or energy savings with lower operating temperatures, BASF Ti-1100e can bring an SRU to its peak performance.

Packaging

- 2204 lb (1000 kg) super sacks
- 350 lb (150 kg) drums

Physical Properties

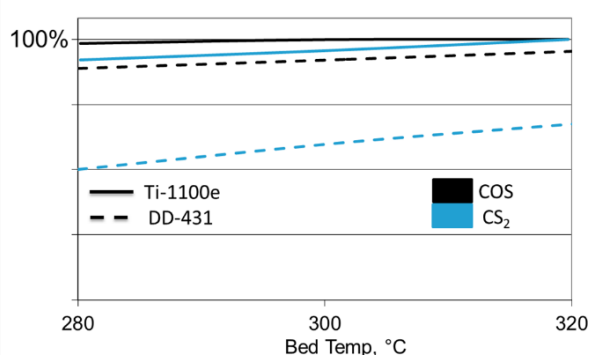
Titania XRD Phase Anatase

Crush Strength (1/4" length), N/mm 14

Packed Bulk Density, lbs/ft³ (kg/m³) 56 (900)

Titania, minimum wt 90

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



Comparison of COS and CS₂ conversion across BASF titania and alumina at 1000 GHSV hour

Feed Gas Composition			
H₂S	7.9%	SO₂	4%
COS	0.05%	CS₂	0.05%
H₂O	30%	N₂	balance

About Us

BASF is a leading global manufacturer of catalysts for the chemical industry, with solutions across the chemical value chain. The business comprises chemical catalysts and adsorbents, refinery catalysts and custom catalysts. In the process catalysts business, priority is given to developing new and improved products that enable the chemical industry transformation to net-zero emissions.

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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