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Product Data Sheet

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 (CO_2) in the feed will have elevated levels of carbonyl sulfide (COS) and carbon disulfide (CS_2) 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 (H_2S) and sulfur dioxide (SO_2). By adding Ti-1100e to the first converter, operating temperatures can be lowered and the highest possible conversions of all sulfur species (H_2S, SO_2, COS & CS_2) 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 through higher COS/CS_2 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	
Surface Area, m^2/g	110 - 120
Titania XRD Phase	Anatase
Crush Strength (1/4" length), N/mm	14
Packed Bulk Density, lbs/ft^3 (kg/m^3)	56 (900)
Titania, minimum wt %	90

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

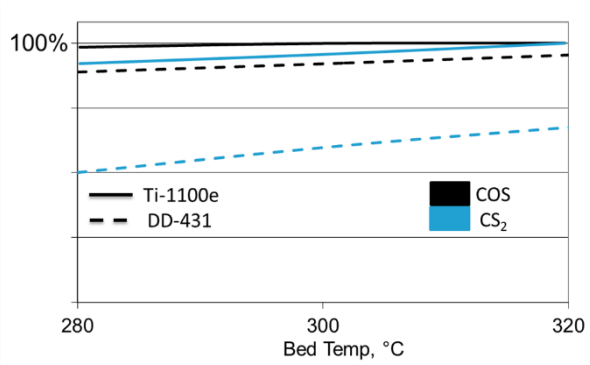

Figure 1: Comparison of COS and CS_2 conversion across BASF titania and alumina at 1000 GHSV hour

Feed Gas Composition			
H_2S	7.9%	SO_2	4%
COS	0.05%	CS_2	0.05%
H_2O	30%	N_2	balance

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