

## TITANIUM DIOXIDE CLAUS CATALYST EXTRUDATE

### Typical Properties

<b>Chemical</b>	TiO <sub>2</sub> + promoter	> 92%
	Net LOI (250 – 1000 °C)	2.0 – 3.0%
<b>Physical</b>	Surface Area	130 m <sup>2</sup> /g
	Flat Plate Crush Strength	3.5 lb <sub>f</sub> /mm
	Sock Loaded Density*	49 lbs/ft <sup>3</sup> (785 kg/m <sup>3</sup> )
	Size – nominal	3.5 mm extrudate
<b>Availability</b>	Shipping Point	Little Rock, Arkansas
	Packaging	2,000 lbs (907.2 kg) supersacks

**Application** Extruded titanium dioxide (TiO<sub>2</sub>) Claus SRU catalyst for very high hydrolysis conversion of CS<sub>2</sub> and COS to H<sub>2</sub>S and superior resistance to sulfation poisoning. Typically loaded in a portion of the first reactor. Superior resistance to sulfation poisoning and hydrothermal aging effects allow the catalyst to provide long service life while maintaining very high conversion. The resistance to sulfation may be beneficial in the second and third reactors, especially downstream of direct-fired reheaters, or in cases where the potential for sulfation poisoning exists. Allows higher space velocities for the same sulfur conversion, which may result in smaller Claus SRU reactor volumes for new or retrofit units. Claus SRU units requiring a TiO<sub>2</sub> catalyst may have one or more of the following conditions:

- Feeds with high COS and CS<sub>2</sub>
- Located in regions with higher sulfur emissions standards
- Need to decrease turnaround frequency (increased active life)
- Plants with lean acid gas feeds
- Claus SRUs followed by sub-dew point, SUPERCLAUS®, directoxidation, or no tail gas treating
- Need to bottleneck downstream tail gas treating unit

\*Values shown reflect typical values. Actual shipments fall within a specification range (provided upon request). Orders requiring a minimum volume fill should include a minimum 5% contingency if based on the typical density.

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