

BASF Catalysts

Technical Bulletin

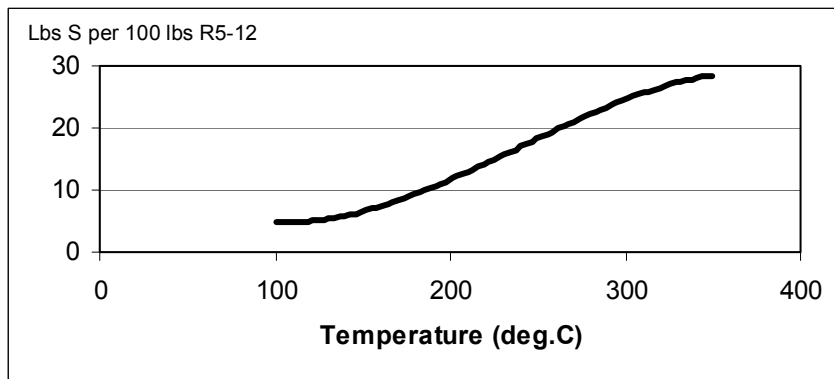
R 5-12

ZnO for H₂S Removal

Catalyst Data Sheet

BASF Catalyst R 5-12 is designed for high efficiency removal of H₂S gases such as hydrogen, natural gas and ethylene. It can be applied either as a standalone guard bed, as a guard bed to protect other catalysts such as Pd deoxo types, or as a following bed to remove H₂S formed in hydrodesulfurization reactors.

Sulfur absorption capacity is strongly a function of temperature. The chart below gives the capacity-vs.-temperature relationship for relatively dry streams. If however the feed contains higher amounts of water, the performance and capacity are negatively affected.



- Composition:** approx. 95% highly activated zinc oxide
- Form:** 4 mm extrudates
- Bulk Density:** 1050 kg/m³ (65.5 lb/ft³) may vary with loading technique
- Crush Strength:** > 2 kg (knife edge method)
- Operating Temp.:** preferably 200-400 °C
- Thermal Stability:** 500 °C
- Lifetime/capacity:** Capacity and lifetime depend on sulfur levels, space velocity, temperature and other factors. Contact BASF for assistance on your particular application.

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