

NOxCat™ VNX SCR Catalyst

For natural gas turbines and stationary engines

BASF's VNX family of SCR catalysts is based upon vanadia/titania as the principle catalytic material.

Vanadia/titania SCR catalysts are used in numerous NOx reduction applications, and have been successfully demonstrated in reciprocating engine, gas turbine and utility/industrial boiler applications.

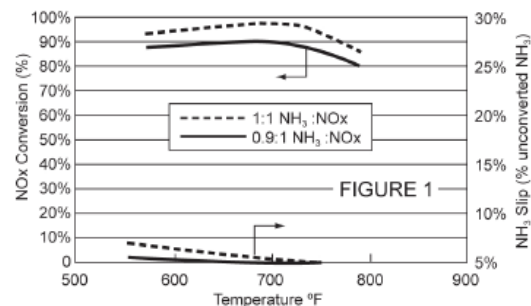
BASF VNX catalysts feature composite honeycomb configurations which use highly active vanadia/titania catalytic coatings on ceramic structures. The honeycomb structures are available in a range of cell sizes to facilitate catalyst designs which meet individual applications.

Temperature Range

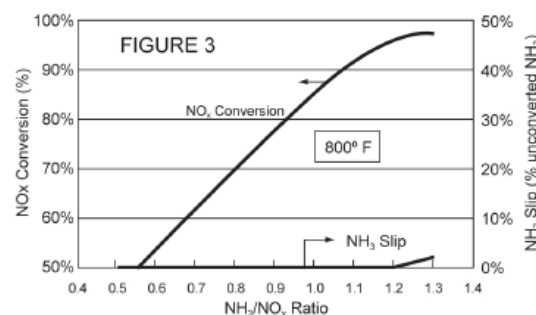
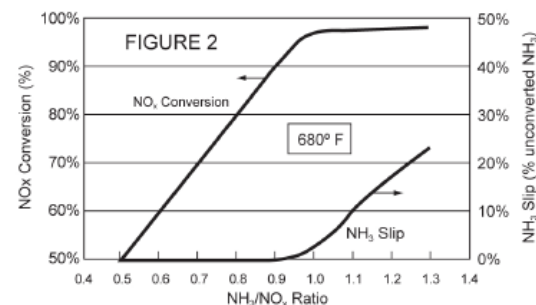
- 600 to 760°F optimum
- 575 to 800°F maximum
- Under 575°F NOx efficiency is reduced with increased NH₃ slip
- Above 800°F, catalytic efficiency decreases with time

Performance

- NH₃ reacts with NOx to form nitrogen and water. NOx conversion increases with NH₃ injection. With 0.9:1.0 NH₃:NOx ratio 90% NOx conversion and low NH₃ slip from 575 to 800°F (Figure 1)



- Higher operating temperatures decrease NH₃ slip; but increase NH₃ consumption (Figures 2 and 3)



About BASF

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success.

Visit www.catalysts.basf.com/patents for a list of our product patents.

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