

# 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.

## NOxCat™

## NOx Reduction Catalysts

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.

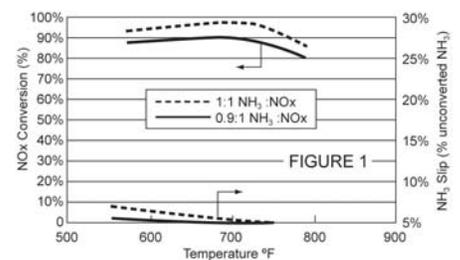
BASF VNX catalysts feature composite honeycomb configurations which use highly active vanadia/ titania catalytic coatings on ceramic structures. The honeycomb structures are available in a range of cell sizes to facilitate catalyst designs which meet individual applications.

### Temperature Range

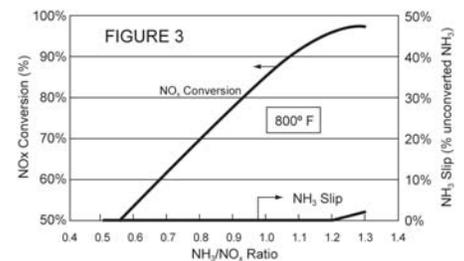
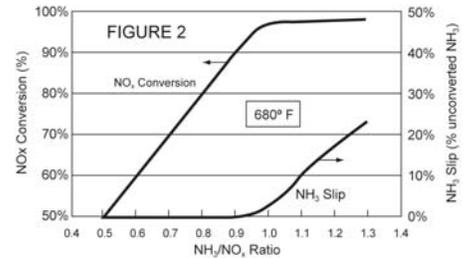
- 600 to 760°F optimum
- 575 to 800°F maximum
- Under 575°F NOx efficiency is reduced with increased NH3 slip
- Above 800°F, catalytic efficiency decreases with time

### Performance

- NH<sub>3</sub> reacts with NOx to form nitrogen and water. NOx conversion increases with NH<sub>3</sub> injection. With 0.9:1.0 NH<sub>3</sub>:NOx ratio 90% NOx conversion and low NH<sub>3</sub> slip from 575 to 700°F (Figure 1)



- Higher operating temperatures decrease NH<sub>3</sub> slip; but increase NH<sub>3</sub> consumption (Figures 2 and 3)



## About BASF

BASF Catalysts, the **Global Leader in Catalysis**, is a division of BASF - The Chemical Company. We offer exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure the efficient production of a wide variety of chemicals, plastics, adsorbents and other products. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF Catalysts develop unique, proprietary catalyst solutions that drive customer success.

## BASF - The Chemical Company

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