

Power Generation Catalysts

Powering Clean Generation



Powering Clean Generation

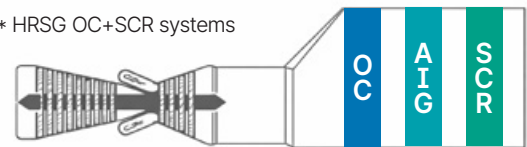
Oxidation Catalyst

Product Overview

Product Name	Oxidation Catalyst (OC)
Application	Oxidation of CO and VOCs in exhaust gas from power plants, industrial boilers, and HRSG (Heat Recovery Steam Generator) systems
Key Reactions	$CO + \frac{1}{2}O_2 \rightarrow CO_2$ HC (or UHC) + $O_2 \rightarrow CO_2 + H_2O$ $NO \rightarrow NO_2$ (for fast SCR during startup)
Operating Temp.	200–550°C



* HRSG OC+SCR systems



Product Line-up(OC / SCR)

Category	Oxidation Catalyst (OC)	SCR Catalyst	
	Oxidation Catalyst	Honeycomb	Corrugated
Structure / Material	Metal corrugated, Ceramic honeycomb	Cordierite	Glass fiber
Operating Temp.	250°C–550°C	250–650°C	250–450°C
SV	20,000–50,000/hr	~20,000h ⁻¹	~20,000h ⁻¹
Cell Density	100–400 cpsi	46 / 100 cpsi	64 cpsi
Cell Pitch	-	3.6 / 2.4 mm	3.1 mm
Plate Pitch	-	-	3.0 mm
Wall Thickness	-	0.6 / 0.4 mm	0.3 mm

Key Features



Excellent Low-Temp. Activity

Optimal performance at 200–550°C
Reducing operating costs through lower temperature operation



High Durability Design

Enhanced durability with thermally stable catalyst
Robust coating adhesion and long catalyst lifetime



Optimized Substrate Structure

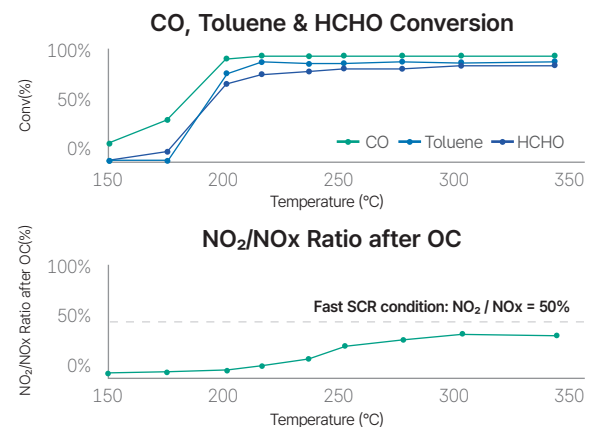
Cordierite honeycomb or metallic corrugated substrates



Pt/Pd Precious Metal Catalyst Technology

Advanced dispersion technology
Enabling efficient treatment of various VOCs

Performance Data



Applications



Combined Cycle & Gas Turbines

HRSG



Industrial Boilers

Applicable to various capacity ranges

CO & VOC emission reduction and regulatory compliance

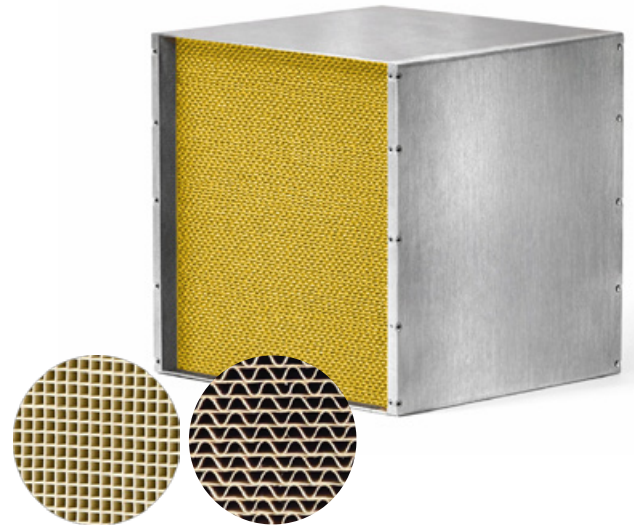
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SCR Catalyst

Product Overview

Product Name	SCR (Selective Catalytic Reduction) Catalyst
Application	Reduction of nitrogen oxides (NOx) in flue gas from power plants and industrial facilities using ammonia (NH ₃) or urea as a reducing agent
Technology	Advanced Washcoat-in-Wall (wiw) structure for enhanced activity and durability
Operating Temp.	Corrugated: 250–450°C Honeycomb: 250–600°C
Performance	NOx reduction ≥90%, NH ₃ slip ≤30 ppm



Key Features



WiW Structure

Active materials are embedded within the substrate walls to enhance durability



Flexible Dust Handling Capability

Optimized design for High/Low/Tail dust environments



90%+ NOx Removal

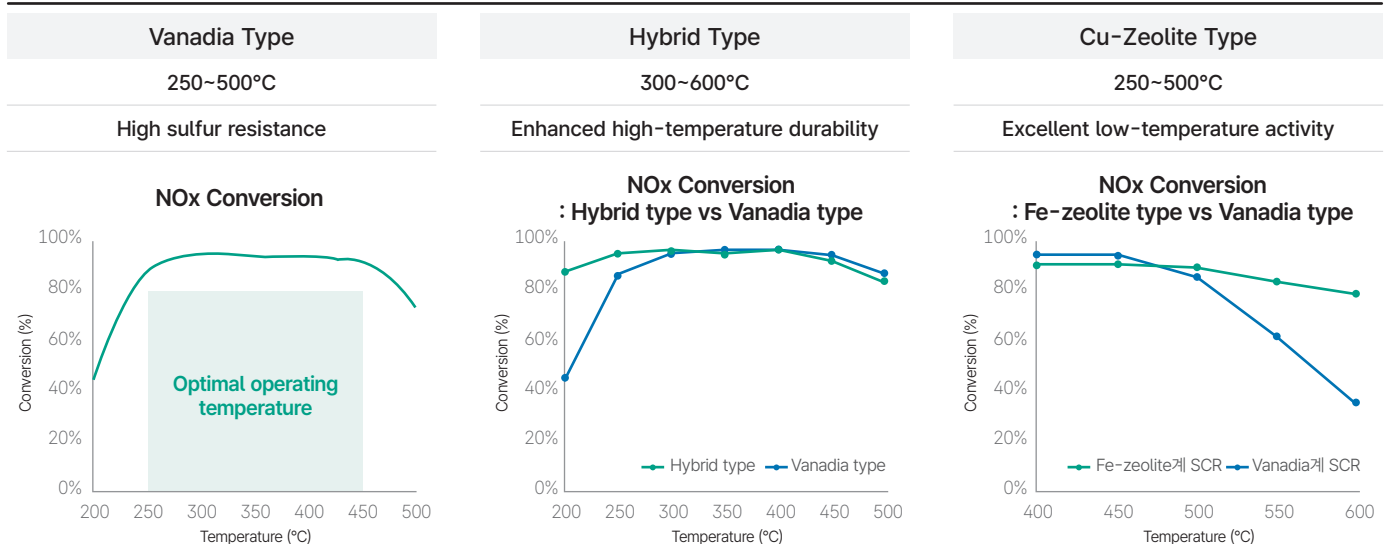
Ensures stable performance under stringent environmental standards



Vanadia / Zeolite Catalysts

Optimized for various operating conditions
Vanadia: Sulfur-resistant
Fe-Zeolite: High-temp. durable
Cu-Zeolite: Low-temp. active

Performance Data



Applications



Combined Cycle Power Plants



Coal-Fired Power Plants



HRSG



Industrial Boilers

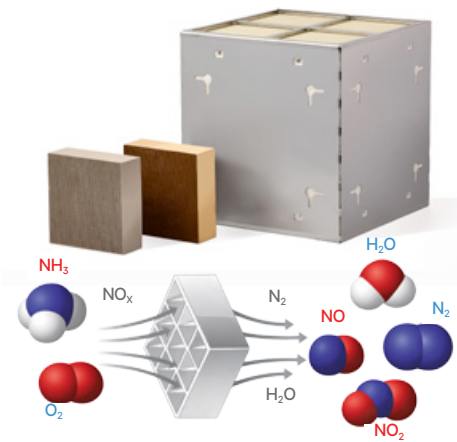


Incinerators

Hybrid Catalyst (SCR Tail-End Application)

Product Overview

Product Name	Hybrid Catalyst
Application	Post-SCR catalyst designed to reduce NH ₃ slip to below 10 ppm in power plant
Technology	Selective oxidation of residual ammonia (NH ₃) into N ₂ and H ₂ O, improving overall emission quality
Operating Temp.	350–500°C
NH ₃ Removal Efficiency	≥ 99%



Product Line-up

Category	Standard Type	High-Durability Type
Product Name	HE-1030	HE-1370
Composition	Pt, Fe, Zeolite	Pt, Cu, Zeolite
Layering	Single-layer	Dual-layer
SV	10,000 ~ 40,000/hr	10,000 ~ 40,000/hr
Operating Temp.	350 ~ 500°C	350 ~ 500°C
Substrate	Honeycomb (Cordierite)	Honeycomb (Cordierite)

Key Features



High NH₃ Reduction Performance

Meeting emission limits with industry-leading performance



Excellent N₂ Selectivity

Minimizes formation of secondary pollutants (e.g., NO, N₂O)



Low Byproduct Formation

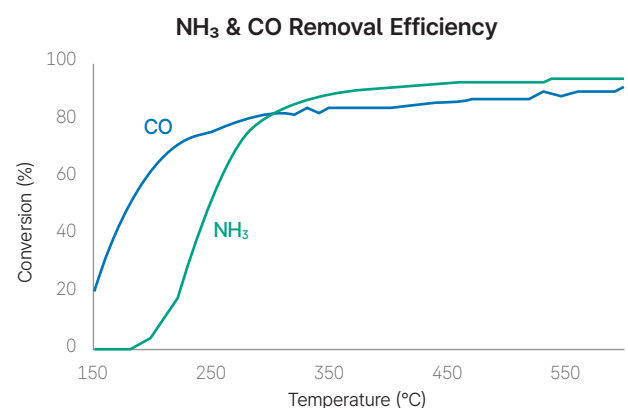
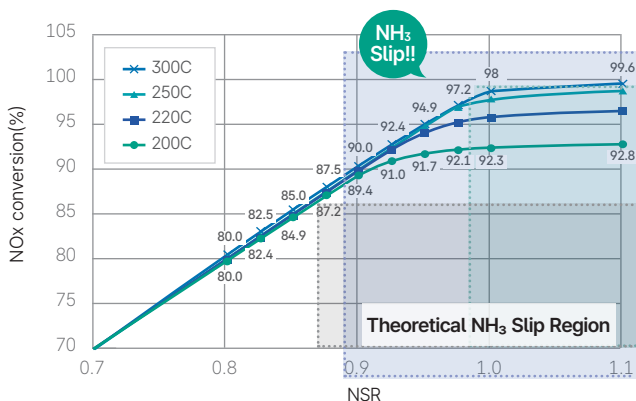
NO_x ≤ 5 ppm, N₂O ≤ 2 ppm
Minimal secondary emissions



Precious Metal-Based High Activity

Pt-Zeolite composition provides excellent durability

Performance Data



Powering Clean Generation

Company Overview

We are a specialized company in the design, manufacturing, and performance evaluation of emission control catalysts for power plant flue gas treatment.

With over 40 years of technical expertise, we provide tailored solutions for each customer's specific requirements, delivering efficient and reliable emission reduction systems.

Core Capabilities



**ISO 9001 /
ISO 14001**

International quality certification



**Oxidation Catalyst
Technology**

Efficient CO and VOC removal



**SCR Design
& Manufacturing**

High-efficiency DeNOx solutions



**Integrated
AOC Systems**

Optimized NH₃ slip reduction

Customer Services



Catalyst Life Extension/Regeneration

Substrate recovery
& performance optimization



Customized Catalyst Design

CFD-based flow
and reaction modeling



Air Pollution Control System Consulting

End-to-end support:
design/supply/commissioning



Catalyst Analysis & Activity Evaluation

Performance testing
and diagnostic analysis

Resource Circularity Services



Fresh Catalyst



Spent Catalyst



Precious Metal Recovery



New Catalyst or Resale

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