

Topsøe automotive SCR catalyst DNXR

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Haldor Topsøe's automotive technology is based on the unique DNX catalyst. The DNXR catalyst has been carefully adopted to comply with the very stringent demands of the automotive industry and has shown high performance and durability.

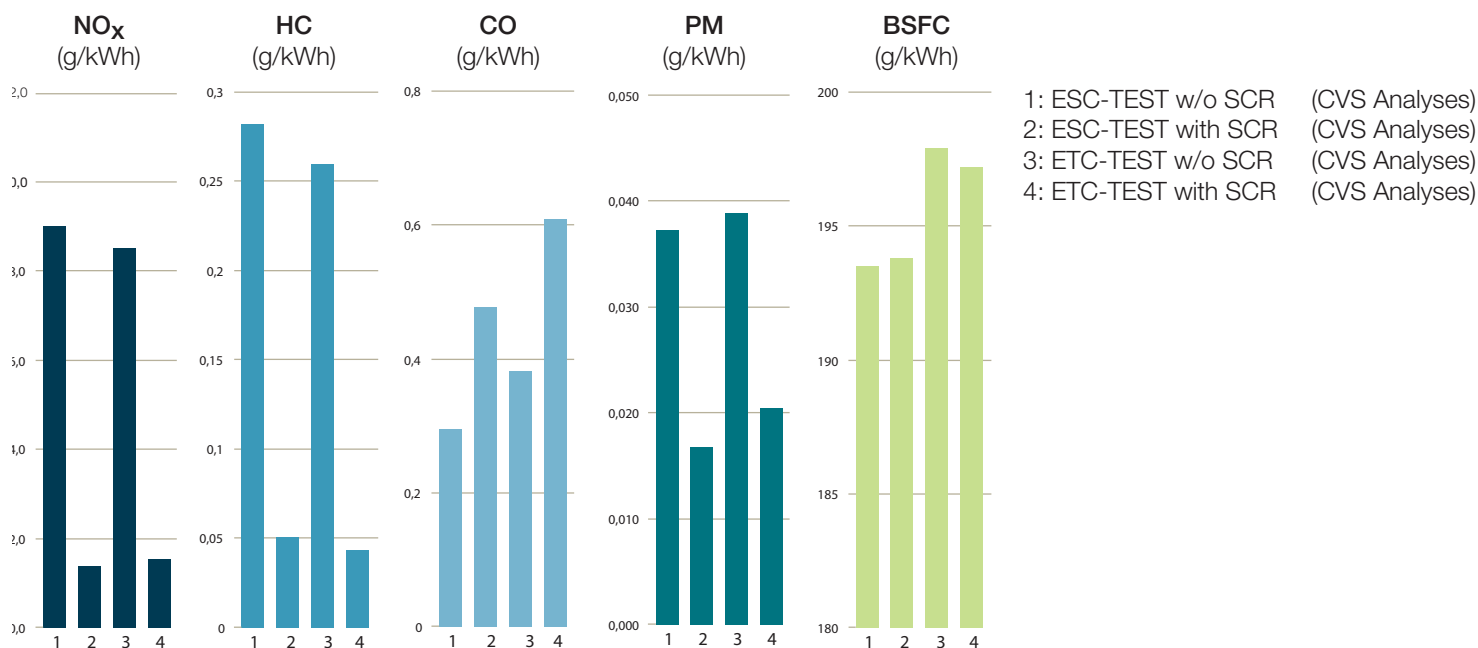
The catalyst is based on a lightweight fibre-reinforced ceramic structure with a high cell density. The catalytic active metals are vanadium and tungsten oxides on a carrier of titanium oxide. The catalyst is of a full body type, meaning that the walls in the channels are made of catalytic material.

The DNXR can be produced with diameters up to 17.5". This unique feature makes it possible to install DNXR as one single catalytic brick in vehicles with engines up to the 16 litre class. The DNXR can also be supplied with an end zone coating for ammonia slip reduction called ASC.

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Summary of regulated emissions in ESC and ETC cycles with a 20 litre catalyst and a 12 litre class 400 hp diesel engine

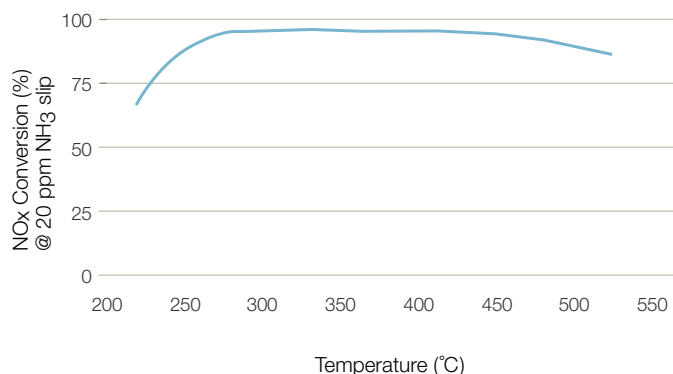
High conversion

As the DNXR is a full body catalyst, it offers a high nitrogen oxide conversion in the whole temperature window of operation and has a high conversion of hydrocarbons (HC) and particulate matter (PM). Furthermore, the DNXR has an excellent selectivity to ensure a maximal utilisation of injected urea and low urea consumption. The full body catalyst also ensures the catalyst a long service life.

Applications

DNXR is especially suited to comply with the Euro 4 and higher emission standards or similar, also in countries with high sulphur fuel qualities.

The DNXR is produced in a fully automated plant according to superior standards TS16949 and ISO 14000 and used by several truck manufacturers in Europe.



Catalytic performance of 24 litre catalyst at maximal flow on a 400 hp 12 litre class diesel engine

Catalyst data	
Weight	500 g/l
Active metals	Vanadium and tungsten oxides
Carrier type	Titanium oxide
Channel density	270
Diameters	Ø 5.66 - 17"

Installation

The catalyst can be delivered with a high tolerance metal sleeve, enabling a smooth fitting of the catalyst to various types of silencer installations.