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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 31587-2015

Honeycomb-type DeNOx catalysts

蜂窝式烟气脱硝催化剂

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Quarantine;
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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee Chemistry (SAC/TC63) centralized. This standard was drafted. Chongqing Yuanda Catalyst Manufacturing Co., South of the Academy Group, Jiangsu Longyuan Catalyst Co., Ltd., Chengdu Dongfang KWH Environmental Protection Catalyst Co., Ltd., Xi'an Thermal Power Research Institute Co., Ltd., Zhejiang German Environmental Protection Technology Co., Ltd., Xi'an Science and Technology Co., Ltd., a chemical element. The main drafters of this standard. Huang Rui, Zhou Lin, Yi Shengbing, Wonder Chi, Bai Wei, Xie Xiaobin, Sea Fan, cattle Lei, Zhao Bo, Lu Jiyue. Cellular flue gas denitration catalyst

1 Scope

China's national product standard for honeycomb-type flue gas denitrification catalysts. It specifies the terms and definitions, the product specifications, the requirements, the test methods, the inspection rules, the marking, packaging, transport and storage, and the documents accompanying the product, and it applies to vanadium-titanium ammonia selective catalytic reduction honeycomb catalysts. A honeycomb catalyst is extruded as a single body and fired, so that the active material is not a coating on a substrate but the substrate itself, and the element leaves the die as a block pierced by many parallel square channels. The standard defines the unit as a monolith of 150 mm by 150 mm cross-section and the module as a box assembling a number of units, which is how the catalyst is actually bought, handled and installed - a large boiler takes thousands of units in hundreds of modules, and the reactor is loaded and later replaced module by module. Because the active material runs through the whole wall rather than sitting on its surface, a honeycomb element tolerates surface erosion without losing activity and can be regenerated more deeply than a coated plate. It gives a high geometric surface area per unit volume, so the reactor is smaller than the plate-type equivalent for the same conversion. What it does not tolerate as well is ash: the channels are narrow, so the pitch has to be matched to the ash burden of the coal, and blockage or bridging in the channels is the failure that takes a bed out of service. Two of the properties defined here follow directly from that geometry - the

opening ratio, being the fraction of the cross-section open to gas flow, and the abrasion rate. Issued on 2 June 2015 and in force since 1 December 2015.

This standard specifies the terms and definitions cellular flue gas denitration catalyst, product specifications, requirements, test methods, inspection rules, marks, packages Loading, transportation and storage, product accompanying documents. This standard applies to vanadium and titanium-based ammonia-selective catalytic reduction flue gas denitration catalyst honeycomb.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191 Packaging - Pictorial signs GB /Determination of solid material surface area BET gas adsorption method T 19587

GB/T 21650.1 mercury porosimetry and gas adsorption of solid materials the pore size distribution and porosity Part 1. Mercury

GB/T 31590-2015 flue gas denitration catalyst chemical composition analysis method

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Honeycomb denitration catalyst honeycomb-typecatalyst Overall extrusion, end in a honeycomb, the roasting of the denitration catalyst.

3.2 Ammonia-selective catalytic reduction NH₃selectivecatalyticreduction In the catalyst, the reducing agent is ammonia and nitrogen oxides reaction of nitrogen and water denitration method.

3.3 Unit log Sectional dimension of 150mm x 150mm monomer of the honeycomb catalyst.

3.4 Module module By a number of catalyst unit assembled from modules box.

3.5 Opening rate openingratio The ratio of the catalyst circulation passage sectional area of the flue gas and the total sectional area of the catalyst.

3.6 Wear rate abrasionratio The percentage of catalyst before and after the wear mass loss, and the ratio of the mass of use-wear agents.

3.7 Notch chip And the end surface of the outer wall of the catalyst unit appears openings, specifically Figure 1.