

ICS 13.040.40
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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

HJ 2026-2013

**Technical specifications of adsorption method for industrial
organic emissions treatment project**

吸附法工业有机废气治理工程技术规范

(English Translation)

Issued on: January 1, 1970

Implemented on: January 1, 1970

Issued by: Ministry of Ecology and Environment

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Foreword

Standardize industrial organic waste gas for the implementation of the Environmental Protection Law of the People's Republic of China and the Law of the People's Republic of China the construction of the treatment project, prevention and control of industrial organic waste gas pollution, improvement of environmental quality, the development of this standard.

This standard specifies the technical requirements for the design, construction, acceptance and operation of industrial organic waste gas adsorption treatment engineering.

This standard is a guidance document.

This standard is the first release.

This standard was formulated by the Science and Technology Standards Department of the Ministry of Environmental Protection.

This standard is mainly drafted by. China Environmental Protection Industry Association, Chinese People's Liberation Army Institute of Chemical Defense, Chinese Academy of Sciences, Ecological Environment Research Center, China Energy Saving Tianchen (Beijing) Environmental Protection Technology Co., Ltd., Ningxia Huahui Activated Carbon Co., Ltd., Beijing Lvhuang Environmental Protection Equipment Co., Ltd., Jiangsu Sutong Carbon Fiber Co., Ltd., Jiayuan Environmental Protection Co., Ltd., Quanzhou Tianlong Environmental Engineering Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on March 29, 2013.

This standard has been implemented since July 1, 2013.

This standard is explained by the Ministry of Environmental Protection.

Adsorption method industrial organic waste gas treatment engineering technical specification

1 Scope of application

This standard specifies the technical requirements for the design, construction, acceptance and operation of industrial organic waste gas adsorption treatment engineering.

This standard is applicable to the atmospheric pressure adsorption treatment of industrial organic waste gas, and can be used as environmental impact assessment, engineering consulting, design, construction, the technical basis for operation and management after acceptance and completion.

2 Normative references

The contents of this standard refer to the terms in the following documents. For undated references, the valid version applies to this standard.

GB 3836.4 Electrical equipment for explosive atmospheres - Part 4. Intrinsically safe "i"
Textile fabrics - Tensile properties - Part 1. Determination of breaking strength and
elongation at break GB/T 7701.2 recovery of solvent coal granular activated carbon GB/T
7701.5 Purified air coal granular activated carbon GB 12348 industrial enterprise boundary
noise standard GB/T 16157 Determination of particulate matter in fixed pollution source
exhaust gas and sampling method of gaseous pollutants GB/T 20449 Activated carbon
butane working capacity test method GB 50016 Building Design Fire Code GB 50019
Heating, Ventilation and Air Conditioning Design Code GB 50051 exhaust pipe design
specification GB 50057 lightning protection design code for buildings GB 50058
Specification for design of electrical installations for explosion and fire hazard environments
GB 50140 Building Fire Extinguisher Configuration Design Specification GB 50160
Petrochemical Enterprise Design Fire Protection Code GB 50187 General Plan for Design
of Industrial Enterprises GB J 87 Industrial Enterprise Noise Control Design Specification
HGJ 229 Industrial equipment, pipeline anti-corrosion engineering construction and
acceptance specifications HJ/T 1 gas parameter measurement and sampling fixed position
device HJ/T 386 industrial waste gas adsorption purification device HJ/T 387 industrial
waste gas absorption and purification device HJ/T 389 Industrial Organic Waste Gas
Catalytic Purification Device HJ .2000 Technical Guidelines for Air Pollution Control
Engineering JJF 1049 temperature sensor dynamic response calibration "Design
Regulations for Environmental Protection of Construction Projects" National Planning
Commission, State Council Environmental Protection Committee [1987] No. 002
Regulations on Environmental Protection Management of Construction Projects, State
Council of the People's Republic of China [1998] No. 253 "Measures for Completion and
Acceptance of Construction Projects (Engineering)" National Planning Commission.1990
"Administrative Measures for Environmental Protection Acceptance of Completion of
Construction Projects" State Environmental Protection Administration Order [2002] No. 13

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Industrial organic emissions

Refers to gaseous pollutants containing volatile organic compounds emitted by industrial processes.

3.2 Explosion limit explosive limit

Also known as the explosive concentration limit. Refers to the concentration range in which a combustible gas or vapor can be combined with air to explode.

3.3 Lower explosive limit lower explosive limit

Refers to the lowest concentration value of the explosion limit.

3.4 Activated carbon fiber felt activated carbon fiber felt

Refers to a porous material prepared by carbonization and activation of a fiber mat processed by viscose, polyacrylonitrile or pitch fiber.

3.5 Honeycomb activated carbon

Refers to the powdered activated carbon, water-soluble binder, lubricant and water, etc. after being compounded, kneaded, extruded, and then dried, charred, Honeycomb adsorbent material prepared after activation.

3.6 Honeycomb molecular sieve honeycomb-type molecular sieve

Refers to the powdered molecular sieve, water-soluble binder, lubricant and water, etc. after being compounded, kneaded, extruded, and then dried and activated.

a honeycomb adsorbent material produced later; or a slurry prepared by using a powdery molecular sieve, a water-soluble binder, and water, is coated on the fiber material, A honeycomb-like adsorbent material made by folding and drying.

3.7 BET specific surface area BET specific surface area

Refers to the surface area per unit mass of adsorbent tested by the BET method, in m²/g.

3.8 Fixed bed adsorption device fixed bed adsorber

Refers to the adsorption device in which the adsorbent layer is in a stationary state during the adsorption process.

3.9 Moving bed adsorption device moving bed adsorber

It refers to the continuous passage of the adsorbent in a certain manner, and sequentially completes the adsorption, desorption and regeneration and re-enters the adsorption section of the adsorption section.