

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

HJ 2531-2012

Replacing HJ/T 235-2006

**Technical requirement for environmental labeling products.
Refrigerating equipment for industry and commerce
(English Translation)**

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Table of Contents

Foreword

1 Scope of application

2 Normative references

3 Terms and definitions

3.1 Industrial and commercial refrigeration equipment

3.2 Red Dan red lead

4 Basic requirements

5 Technical content

5.1 Product Environmental Protection Design Requirements

5.2 Requirements for the production phase of the product

5.3 Product requirements

5.4 Product Packaging Requirements

5.5 Product recycling phase requirements

5.6 Product Description Requirements

6 Test methods

Foreword

Reduce the business for the implementation of the Environmental Protection Law of the People's Republic of China and the National Programme for the Emission of Ozone Depleting Substances in China this standard is formulated by the impact on the environment and human health during the production and use of refrigeration equipment.

This standard carries out the technical content of the "Technical Requirements for Environmental Labeling Products for Industrial Refrigeration Equipment" (HJ/T 235-2006).

The changes were made and they were completely revised.

The main changes in this standard compared with HJ/T 235-2006 are as follows.

- Increased the performance factor requirements for different products;
- Increased the requirement for refrigerant to destroy the ozone layer potential (ODP);
- Increased requirements for NO_x emissions from lithium bromide products;
- Increased requirements for product recycling systems.

This standard applies to China Environmental Labeling Product Certification and China

Environmental Labeling Low Carbon Product Certification.

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

This standard was drafted. China-Japan Friendship Environmental Protection Center, Daikin (China) Investment Co., Ltd., Dalian Sanyo Refrigeration Co., Ltd.

Qingdao Hisense Hitachi Air Conditioning System Co., Ltd. and Mitsubishi Heavy Industries Haier (Qingdao) Air Conditioning Machine Co., Ltd.

This standard was approved by the Ministry of Environmental Protection on November 16, 2012.

This standard has been implemented since February 1, 2013 and has replaced HJ/T 235-2006 since its implementation.

This standard is explained by the Ministry of Environmental Protection.

The previous versions of the standards replaced by this standard are.

--HJ/T 235-2006, HJ BZ 22-1998.

Environmental labeling product technical requirements for industrial refrigeration equipment

1 Scope of application

This standard specifies the definition, basic requirements, technical content and technical content of low-carbon products for industrial and commercial refrigeration equipment environmental labels and environmental labels.

Testing method.

This standard applies to steam compression cycle cold water (heat pump) unit, lithium bromide absorption type cold (warm) water unit, air source heat pump heat Water machine, water source heat pump unit, unit type air conditioner, duct air supply type air conditioner (heat pump) unit, multi-connected air conditioner (heat pump) unit Group, roof type air conditioner, excluding industrial and commercial freezer,.

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/T 16157 Determination of particulate matter in fixed pollution source exhaust gas and sampling method of gaseous pollutants GB/T 16288 logo for plastic products GB/T 17758 unit air conditioner GB/T 18430.1 Steam compression cycle cold water (heat pump) units - Part 1. Cold for industrial or commercial use Water (heat pump) unit GB/T 18430.2 Steam

compression cycle cold water (heat pump) units - Part 2. Cold water (heat pump) for household and similar purposes unit GB/T 18431 steam and hot water type lithium bromide absorption chiller GB/T 18455 packaging recycling mark GB/T 18836 air duct air supply (heat pump) unit GB/T 18837 multi-connected air conditioner (heat pump) unit GB/T 19409 water source heat pump unit GB 19576 unit air conditioner energy efficiency limit value and energy efficiency grade GB 19577 chiller energy efficiency limit value and energy efficiency rating GB/T 20738 roof type air conditioning unit GB/T 21362 heat pump water heater for commercial or industrial use and similar purposes GB 21454 multi-connected air conditioning (heat pump) unit energy efficiency limit value and energy efficiency level GB/T 26572 Limit requirements for restricted substances in electrical and electronic products

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Industrial and commercial refrigeration equipment

Refrigeration and air-conditioning equipment with rated cooling capacity greater than 14Kw for professional production, commercial activities, etc.

3.2 Red Dan red lead

An orange to red pigment consisting of high lead lead (Pb_3O_4) and lead monoxide (PbO).

4 Basic requirements

4.1

Product quality and safety performance should meet the corresponding standards.

4.2

Pollutant emissions from product manufacturing enterprises shall comply with national or local standards for pollutant discharge.

4.3

Product manufacturers should strengthen clean production in the production process.

5.1.1 Easy to recycle design

5.1.1.1

Plastic parts with a mass exceeding 25g or a surface area exceeding 200mm² shall be marked in accordance with the requirements of GB/T 16288.

5.1.2 Requirements for hazardous substances in parts and components

5.1.2.1

Product sheet metal parts, heat exchange tubes and heat exchangers, pumps, insulation materials, electronic components (resistors, inductors, connectors, transistors, Metal and paper dielectric capacitors) The limit of toxic and hazardous substances should meet the requirements of GB/T 26572.

5.1.2.2

The ozone depletion potential (ODP) of the refrigerant should be zero.

5.1.2.3

Corrosion inhibitors used in lithium bromide absorption type cold (warm) water units shall not contain hexavalent chromium (Cr6).

5.1.2.4

Insulation materials do not use foaming agents containing hydrochlorofluorocarbons (HCFCs).

5.2 Requirements for the production phase of the product

5.2.1

Low melting point welding (the liquidus temperature of the solder is lower than 450 °C) should be lead-free soldering.

5.2.2

Do not use hydrochlorofluorocarbons (HCFCs), 1,1,1-trichloroethane (C₂H₃Cl₃), trichloroethylene (C₂HCl₃), dichloroethane (CH₃CHCl₂), chloroform (CHCl₃), bromopropane (C₃H₇Br) cleaning agent.

5.2.3

The pre-painting process shall not use benzene-containing solvent, and the unit with rated cooling capacity not more than 50Kw shall not use solvent-based coating.

Material; rated cooling capacity exceeds 50Kw. Units should not use paint containing red dan.

5.2.4

Recycling and waste recycling management requirements in the production process should be established.

5.2.5

Energy conservation management objectives, measures and evaluation requirements in the production process should be established.