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

GB/T 18497.2-2019

**Characteristics of electric infrared emitters for industrial
heating - Part 2: Mediumwave and longwave electric infrared
emitters**

工业加热用电红外发射器的特性 第2部分:中长波电红外发射器

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Foreword

GB/T 18497 "Characteristics of Electric Infrared Emitters for Industrial Heating" is divided into the following two parts.

--- Part 1. Short-wave electric infrared transmitter;

--- Part 2. Medium and long wave electric infrared transmitter. This part is the second part of GB/T 18497. This part is drafted in accordance with the rules given in GB/T 1.1-2009. This part was proposed by China Electrical Equipment Industry Association. This part is under the jurisdiction of the National Technical Committee for Standardization of Industrial Electric Heating Equipment (SAC/TC121). This section drafted by: Dalian University of Technology, National Infrared and Industrial Electric Heating Product Quality Supervision and Inspection Center, Xi'an Electric Furnace Research Limited company, Chengdu Xingyuejiang Electric Appliance Co., Ltd., Xuchang Infrared Technology Research Institute Co., Ltd., Shanghai Reli Technology Group Company, Dongguan Hongyang Thermal Energy Technology Co., Ltd., Nanjing Danlian Technology Co., Ltd., Hangzhou Wuyuan Technology Industrial Co., Ltd., National Electric Furnace Quality Supervision and Inspection Center. The main drafters of this section. Gu Li, Zeng Yu, Wu Di, Li Wei, Xie Minghui, Li Wei, Zhang Yuming, Lu Zikai, Ju Jifu, Ren Anbang, Tong Binbin, Wang Xiaoliang, Wang Yijian. Characteristics of electric infrared emitters for industrial heating Part 2. Medium-long wave electric infrared transmitter

1 Scope

GB/T 18497.2-2019 is the Chinese national standard on characteristics of electric infrared emitters for industrial heating - part 2: mediumwave and longwave electric infrared emitters, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a

tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 4 June 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 January 2020. Classification: ICS 25.180.10, CCS K61. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 18497 specifies the type structure, specifications and basic parameters, technical requirements, and tests of medium and long wave electric infrared emitters. Method, inspection rules, marking, packaging, transportation and storage. This section applies to various non-metallic substrates and metal matrix electric infrared emitters with a peak radiation wavelength of not less than 2 μm for industrial heating. (hereinafter referred to as the transmitter). This part refers to the normal full emissivity, spectral emissivity, infrared radiation wavelength range, effective radiant energy ratio, infrared radiation energy density Infrared radiation characteristics such as degree, electro-thermal radiation conversion efficiency, radiation surface temperature unevenness, etc. are also applicable to various infrared radiation functions. Testing and evaluation of materials and appliances. For applications in scientific research, agriculture, health care, building heating, transportation, food, aquaculture, etc., please also refer to this section. use.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2900.23 Electrotechnical terminology industrial electric heating device

GB/T 7287-2008 Infrared radiant heater test method

GB 8702-2014 Electromagnetic environment control limit

GB/T 10066.12 Test methods for electric heating devices - Part 12. Infra

GB/T 29470-2012 Self-limiting temperature electric heating film

3 Terms and definitions

The following terms and definitions as defined in GB/T 2900.23, GB/T 10066.12 and GB/T 7287 apply to this document.

3.1 Heating element heater A conductive heating material that converts electrical energy into thermal energy and is a heat source for the emitter.

3.2 Electric infrared transmitter electricinfraredemitter A transmitter that converts input

electrical energy primarily into infrared radiation energy.

3.3 Medium wave electric infrared transmitter mediumwaveelectricinfraredemitter An electric infrared emitter with a peak radiation wavelength between 2 μm and 4 μm .

3.4 Long wave electric infrared transmitter longwaveelectricinfraredemitter An electric infrared emitter with a peak radiation wavelength greater than 4 μm .

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