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

GB/T 10303-2015

Replacing GB/T 10303-2001

Expanded perlite thermal insulation products

膨胀珍珠岩绝热制品

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 10303-2001 "Expanded perlite insulation products". Compared with GB/T 10303-2001, in addition to editorial repair The main technical changes are as follows: - Added terms and definitions "Expanded perlite insulation products" (see 3.1); - the density level of 350 was removed (see

4.1.1 and 5.2,.2001,

4.1.1 and 5.2); - the classification was removed (see

4.3 of.2001); - the size was removed (see

5.1.1 of.2001); - the removal of the corresponding qualifying requirements (see 5.1,.2001 version 5.1);

--- modified the thermal conductivity, compressive strength and quality of the water content of the indicators (see 5.2,.2001 version 5.2); - modified the sampling rules (see 7.3,.2001, 7.3); - modified rules (see 7.4,

7.4 of.2001). This standard is proposed by the China Building Materials Federation. This standard is nationalized by the National Standardization Technical Committee for Thermal Insulation (SAC/TC191). The drafting of this standard. Henan Building Materials Research and Design Institute limited liability company, Zhejiang Aske Technology Co., Ltd. The main drafters of this standard. Zhang Liping, Wang Jinhua, Ma Ting, Yang Yanjuan, Xu Yuan Sheng, Qiu Maofa, Wang Junsheng. This standard replaced the previous version of the standard release.

--- GB/T 5485-1985; GB/T 10303-1989, GB/T 10303-2001. Expanded perlite insulation products

1 Scope

China's national standard for expanded perlite thermal insulation products - the rigid boards, pipe sections and shaped pieces made from expanded perlite and a binder, used to insulate boilers, ovens, furnaces, ducts and pipework at temperatures where organic insulation cannot be used. Perlite is a volcanic glass that expands to many times its volume when heated, producing a light, closed-cell mineral aggregate that is inert, non-combustible and stable to high temperature - which is the reason the product exists in a market otherwise dominated by mineral wool and foam. It specifies the terms and definitions, the classification, the requirements, the test methods, the inspection rules, and the marking, packaging, transport and storage of expanded perlite insulation products. The requirements are those a specifier actually chooses on: the density, which governs everything else; the thermal conductivity at the mean temperatures the product will see, since it is used across a wide range and a single figure at room temperature would be misleading; the compressive and flexural strength, because these are rigid products that are walked on and clamped; the maximum service temperature; the moisture content and the water absorption, which matters more than it sounds because a wet mineral insulation conducts heat far better than a dry one and dries out very slowly inside a lagging; the shrinkage on heating; the dimensional tolerances; and the non-combustibility. The test methods and the inspection rules follow, with the sampling by which a consignment is accepted. Issued on 11 September 2015 and in force since 1 August 2016, it replaces GB/T 10303-2001.

This standard specifies the terms and definitions, classification, requirements, test methods, inspection rules, marking, packaging, transport and maintenance of expanded perlite products. Storage. This standard applies to the expansion of perlite as the main component of the insulation products.

2 Normative reference documents

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

GB/T 191 packaging and storage icon Thermal insulation materials and related terms

GB/T 4132 Test method for incombustibility of building materials GB/T Test methods for inorganic hard thermal insulation products

GB/T 5486-2008 Representation and Judgment of Numerical Correction Rule and Limit Value of

GB/T 8170 Classification of Combustion Performance of Building Materials and Products GB/T

GB/T 10294 Thermal insulation materials - Determination of steady - state thermal resistance and related properties - Protective plate method

GB/T 10295 Thermal insulation materials - Determination of steady - state thermal resistance and related properties - Heat flow meter method

GB/T 10296 - Determination of steady - state heat transfer properties of thermal insulation

GB/T 10297 Determination of thermal conductivity of non - metallic solid materials - Hot - wire method
Test method for hydrophobicity of insulating materials
GB/T Combustion properties of building materials and articles - Determination of combustion calorific value
GB/T 14402

GB/T 17393 Specification for insulating materials for austenitic stainless steels
Chemical Analysis of Soluble Chloride, Fluoride, Silicate and Sodium Ion in
JC/T 618 Thermal Insulation Materials

3 Terms and definitions

GB/T 4132 Definitions and the following terms and definitions apply to this document.

3.1 To expand the perlite as the main component, mixed with the amount of adhesive made of insulating products.

3.2 Products add hydrophobic agent, reducing the hydrophilic properties of expanded perlite insulation products.

4.1 Varieties

4.1.1 According to the product density is divided into 200, 250.