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

GB 13544-2011

Replacing GB/T 13544-2011

Fired perforated brick and block

烧结多孔砖和多孔砌块

(English Translation)

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document replaces GB/T 13544-2011 "Sintered Porous Bricks and Porous Blocks". Compared with GB/T 13544-2011, the only difference is the structural adjustment.

Aside from integration and editorial changes, the main technical changes are as follows.

- a) The scope has been changed (see Chapter 1, Chapter 1 of the 2011 edition);
- b) The terms "sintered porous block", "plaster groove", and "mortar groove" and their definitions have been deleted (see 3.1 to 3.3 in the 2011 edition).
- c) Added a product category for "construction waste" and notes on the main raw materials (see 4.1);
- d) A "General Requirements" section has been added (see Chapter 5);
- e) Adjust "plastering trough", "masonry mortar trough", and "Notes 2 and 3 in Table 5" to general requirements (see 5.1~5.3, 2011 edition).

4.2 (Notes 2 and 3 in Table 5)

- f) The technical requirements for the brick's "hole type," "hole size," "minimum outer wall thickness," and "minimum rib thickness" have been changed (see Table 5, 2011 edition).

Table 5);

- g) The requirements for "freeze-thaw" have been changed (see Table 7, 5.8.3 of the 2011 edition).
- h) Added limits and test methods for leached hazardous metal elements (see 6.11, 7.8).
- i) The test method for compressive strength has been changed (see 7.4.1, 6.4 in the 2011 edition).
- j) The sample size has been changed (see Table 8, Table 7 in the 2011 edition).

k) Added test methods for underfired bricks (blocks) and brittle bricks (blocks) (see Appendix C).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Building Materials Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Building Materials for Walls, Roofs and Roads (SAC/TC 285).

1 Scope

This document specifies the product classification, specifications, grades, and marking of sintered porous bricks and porous blocks (hereinafter referred to as bricks and blocks), and general requirements.

Requirements, technical requirements, inspection rules, product certificate, storage and transportation, and test methods are described.

This document applies to the design, production, testing, and application of sintered porous bricks and porous blocks.

4.1 Product Classification

Based on a single raw material or main raw material, they are classified into clay (N), shale (Y), engineering waste (Z), coal gangue (M), and fly ash.

(F), silt (U), others (G).

Note: When using two raw materials, the main raw material is defined as the one with a mass fraction greater than 50% in the blend. When using three or more raw materials, the mass fraction of the blend is defined as follows.

The largest component is the main raw material.

4.2 Specifications

4.2.1

The shape of bricks and blocks is generally a right-angled hexahedron (see Appendix A).

4.2.2

The commonly used dimensions and specifications of bricks and blocks shall meet the following requirements.

a) Brick specifications (mm). 290, 240, 190, 180, 140, 115, 90;

b) Block dimensions (mm). 490, 440, 390, 340, 290, 240, 190, 180, 140, 115, 90;

c) Other specifications and dimensions shall be determined through negotiation between the supplier and the buyer.

Level 4.3

4.3.1 Strength Level

According to compressive strength, they are divided into five strength grades. MU10, MU15, MU20, MU25 and MU30.

4.3.2 Density Grade

Bricks are classified into four density grades based on their bulk density. 1000, 1100, 1200, and 1300.

The blocks are classified into four density grades. 900, 1000, 1100, and 1200, based on their bulk density.

4.4 Marking

Product markings for bricks and blocks are written in the following order. product name, classification, specifications, strength grade, density grade, and standard number.

Tag example.

Sintered engineering slag porous bricks with specifications of 240 mm x 115 mm x 90 mm, strength grade MU15, and density grade 1200, their standard...

5 General Requirements

5.1

Bricks and blocks should preferably have plaster grooves and mortar grooves on the joint surfaces with mortar to increase bonding strength, and should meet the following requirements.

a) For bricks and blocks used for plastered walls, it is advisable to have uniformly distributed plaster grooves or similar structures on the strip surface and top surface, with a depth of not less than 2 mm.

(b) Mortar grooves should be provided on at least one strip or top surface of the block. If mortar grooves are provided on two strips or top surfaces, the masonry...

The depth of the mortar groove should be greater than 15 mm and less than 25 mm; when there is only one strip or top surface with a mortar groove, the depth of the mortar groove should be...

The width should be greater than 30 mm and less than 40 mm. The width of the mortar