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

GB/T 3994-2013

Insulating fireclay refractory bricks

粘土质隔热耐火砖

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 3994-2005 "clay insulating firebrick," compared with the GB/T 3994-2005, the main technical change as follows:

--- Increasing the terms, definitions and symbols;

--- Increased NG140-1.5, NG115-

0.5 grades deletion of NG135-1.1, NG115-

0.4 grades;

--- Modify some cold compressive strength, on heating and other indicators;

--- Modify the quality of the assessment procedures. This standard by the National Standardization Technical Committee Refractories (SAC/TC193) and focal points. This standard was drafted. Sinosteel Refractory Co., Ltd., Pingdingshan new Refractories Co., Ltd. Yixing Morgan Thermal Ceramics has Ltd., Dengfeng City, South Hao Refractories Co., Ltd., Wuhan Weilin lining material limited liability company. The main drafters of this standard. Li willing, Deng Junjie, change military history, Li Zhou, Yin Jun, Wu Dehua, Yin Bo, Dong Weijie, Park Su Ping, Lam bridge. This standard replaces the standards previously issued as follows:

--- GB/T 3994-1983, GB/T 3994-2005. Clay insulating firebrick

1 Scope

China's national standard for insulating fireclay refractory bricks. It specifies the classification, the shape and dimensions, the technical requirements and the test methods. An insulating firebrick is a fireclay brick made deliberately porous - typically by burning out an organic filler - so that most of its volume is trapped air. That makes it a poor conductor and a poor structural material at once, which is exactly the trade a furnace lining wants in

its backing layers: the dense refractory faces the heat and takes the wear, and the insulating brick behind it stops the heat escaping. The saving is substantial, since a furnace loses heat continuously through its walls for its whole campaign. The properties the standard has to fix are the bulk density and thermal conductivity on one side and the strength and maximum service temperature on the other, because increasing the porosity improves the first pair and degrades the second.

This standard specifies the classification of insulating firebrick clay, shape and size, technical requirements, test methods, quality assessment procedures, packaging, marking Chi, transportation, storage and quality certificate. Clayey This standard applies to insulation and do not melt and high temperature erosive effect of gas furnace with heat-resistant lining work Brick.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2992.1 bricks shapes and sizes - Part 1. General brick

GB/T 2998 Shaped insulating refractory products bulk density and true porosity test methods

GB/T 5072 Refractory cold crushing strength

GB/T 5988 Test Methods for permanent change in refractory heating

GB/T 7321 sample preparation method shaped refractory products

GB/T 10325, shaped refractory products acceptance sampling inspection rules Inspection method

GB/T 10326 Refractory products - size, appearance and section

GB/T 16546, shaped refractory products packaging, labeling, transportation and storage

YB/T 4130 refractory material of thermal conductivity (water flow plate method)

3 Terms and Definitions

Terms and definitions GB/T 10325 apply to this document defined.

4 Classification, shapes and sizes

4.1 Performance indicators divided by brick. NG140-1.5, NG135-1.3, NG135-1.2, NG130-1.0, NG125-0.8, NG120-0.6, NG115-

0.5 seven grades. Grades in N, G represent sticky, every Chinese characters Pinyin initials,

numbers 140,135, respectively, on behalf of Clay insulating firebrick on heating test temperature of the first three digits, 1.5,1.3, respectively, on behalf of the bulk density of brick.

4.2 brick shape and size according to GB/T 2992.1 conduct, also drawings provided by the demand side.

5 Technical requirements

5.1 Brick performance indicators should meet the requirements of Table 1.

5.2 tiles size tolerances and appearance shall conform to Table 2.