ICS 81.080
CCS Q 45

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 3995-2014

Insulating high alumina refractory bricks

高铝质隔热耐火砖

Issued on: July 24, 2014 **Implemented on: February 1, 2015**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine;
Standardization Administration of the PRC

Table of Contents

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 3995-2006 "High alumina insulating firebrick," compared with the GB/T 3995-2006, the main technical content change Of the following.

--- Increasing the terms and definitions;

--- Removed DLG180-1.5L grades;

--- Increased DLG135-0.6L grades;

--- Introduction of qualified quality batch mean and standard deviation;

--- Revised its physical and chemical indicators and appearance requirements. This standard by the National Standardization Technical Committee Refractories (SAC/TC193) and focal points. This standard was drafted. Fushun City, North refractories plant, Pingdingshan new Refractories Co., Ltd. Yixing Morgan Thermal Ceramics Co., Secretary, Dengfeng City, South Hao Refractories Co., Ltd., Wuhan Weilin Technology Co., Ltd., Shandong Luyang Co., Ltd. The main drafters of this standard. Full Hu, Tang Dianju, Huang Qian Zhang, Yin Jun, Dong Weijie, Subo Ping, Liu Changlei, Wu Dehua, Yin Bo, Chen Weiwei, Song Bo, Ma Zhongjun. This standard replaces the standards previously issued as follows:

--- GB/T 3995-1983, GB/T 3995-2006. High alumina insulating firebrick

1 Scope

China's national standard for insulating high alumina refractory bricks. It specifies the classification, the shape and dimensions, the technical requirements and the test methods. High alumina insulating brick is the higher-temperature member of the insulating refractory family: raising the alumina content above the fireclay range extends the service temperature by several hundred degrees, at a proportionate increase in cost. It is used where the hot face temperature is beyond what an insulating fireclay backing could survive - in the higher-temperature zones of ceramic and metallurgical kilns, in petrochemical heaters, and

increasingly as a hot-face lining in its own right where there is no mechanical wear and the saving in stored heat matters. That last use is significant for kilns fired intermittently: a lining that has to be heated from cold every cycle wastes fuel in proportion to its mass, and an insulating lining stores a fraction of what a dense one does.

This standard specifies the classification of high alumina insulating firebrick and shape and size, technical requirements, test methods, quality assessment procedures, packaging, marking Chi, transportation, storage and quality certificate. This standard applies to thermal furnace insulation or in direct contact with hot molten material of the working layer of insulating firebrick high aluminum.

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 6900 LAS Chemical analysis of refractories

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

GB/T 16763 Shaped insulating refractory products - Classification

GB/T 21114 refractory X-ray fluorescence spectroscopy for chemical analysis of cast glass method YB/T 4130 refractory material of thermal conductivity (water flow plate method)

3 Definitions and symbols

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

4 Size and shape classification

4.1 Classification Brick according to chemical composition divided into low iron insulating

firebrick high aluminum and high alumina insulating firebrick general categories (Table 1). Models D, L, G Were low, aluminum, across the Pinyin initials; 170,160, 125, respectively, on behalf of the brick classification temperature (heating of permanent change Test temperature) of the first three digits; 1.3,1.0, and 0.5, respectively, on behalf of the bulk density of brick; L represents the end of the bulk density of the grade Less than GB/T 16763 of the predetermined value.

4.2 shape and size Brick shape and size should be consistent with the provisions of GB/T 2992.1, but also demand side design and manufacturing.