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

GB/T 5101-2017

Fired common bricks

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 5101-2003, compared with GB/T 5101-2003, the main changes are as follows:

- The construction of muck, silt, sludge and other solid waste into the scope of this standard brick raw materials (see Chapter 1, 2003 edition Chapter 1);
- Removed the term "sintered decorative brick", added "construction dregs" "sludge" "sludge" "other solid waste" (see Chapter 3, 2003 edition Chapter 3);
- Cancel the premium products, first-class products, quality products quality level, the use of qualified and unqualified product quality (see 4.2, 2003 edition 4.2.2);
- Added "General requirements" chapter (see Chapter 5);
- Canceled the method of strength grade assessment of the average compressive strength and monolithic minimum assessment method, using the average intensity and intensity Standard value assessment method (see 6.3, 2003 edition 5.3);
- The standard value of the compressive strength f_k receiving constant $K = 1.8$ adjusted to $K = 1.83$ (see 7.3.2, 2003 version 6.3.2.1).
- Ex-factory inspection project to increase "under fire brick, brick and spiral brick" (see 8.1.1, 2003 edition 7.1.1);
- Increased under fire bricks, crisp bricks, spiral brick test method (see Appendix C);
- Move the "Tibet Autonomous Region" from a non-seriously weathered area to a heavily weathered area (see Appendix B, Appendix B of the 2003 edition). This standard proposed by the China Building Materials Federation. This standard by the National Wall Roofing and Road Building Materials Standardization Technical Committee (SAC/TC285) centralized. This standard is drafted by .China Building Materials Inspection and Certification Group Xi'an Co., Ltd., Shaanxi Construction Engineering Eleventh Construction Group Co., Ltd., Xi'an Wall Materials Research and Design Institute. Participated in the drafting of this standard. Skill Machinery Co., Ltd., Ningxia Zhizhi letter Detection Co., Ltd.. The main

drafters of this standard. Wang Bao Choi, Sun Wanqi, Yan Gang, Huang Guangyu, Gao Hua, Li Jinghua, Huang Yonggen, Gao Ling, Zhou Wanning, Feng Hongbin, Zhang Shaoshan, Lin Ling, Xiao Hui, Zhou Hyun. This standard replaces the standards previously issued as.

--- GB 5101-1992, GB/T 5101-1998, GB/T 5101-2003. Sintered ordinary brick

1 Scope

China's national standard for fired common bricks. The fired clay brick is the oldest manufactured building material still in use and remains the load-bearing wall of an enormous amount of Chinese construction. What has changed, and what this standard reflects, is what it is made from. Firing bricks from clay dug out of fields consumed farmland at a rate China could not sustain, so the industry was pushed towards waste-derived raw materials, and the standard's scope now names them: clay, shale, coal gangue, fly ash, construction spoil, river and lake silt, and sludge. Bricks from these materials behave differently - gangue and fly ash bring their own fuel value and their own variability, and silt and sludge bring soluble salts that efflorescence and frost damage follow from - so the requirements have to hold across all of them. The standard specifies classification, grades, dimensions, marking, general and technical requirements, test methods, inspection rules, packaging, transport and storage for bricks used in load-bearing parts of buildings.

This standard specifies the ordinary brick sintered product classification, grade, specifications, marking, general requirements, technical requirements, test methods, inspection rules, Logo, packaging, shipping and storage. This standard applies to clay, shale, coal gangue, fly ash, construction muck, silt (rivers and lakes silt), sludge, etc. as the main raw material, the It is mainly made of roasted ordinary brick (hereinafter referred to as brick) for the load-bearing parts of the building.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document. Test method for GB/T 2542 brick

GB 6566 Building materials radionuclide limits

GB/T 18968 wall materials terminology JC/T 466 masonry wall inspection rules

3 Terms and definitions

GB/T 18968 and JC/T 466 as defined by the following terms and definitions apply to this document.

3.1 Construction muck constructionwasteresidue Construction of excavation of brick for waste.

3.2 Sludge sludge Deposition of clay sediments on the river, river, lake or shore (periphery).

3.3 Sludge sludge Semi-solid or solid material produced during water treatment.

3.4 Other solid waste othersolidwastes The basic performance to meet the requirements of brick raw materials, and does not contain harmful substances and radioactive elements exceeded mine residue, industrial and mining enterprises Of solid waste and so on. 4 product categories, levels, specifications and markings

4.1 Product Classification The main raw materials are divided into clay brick (N), shale brick (Y), coal gangue brick (M), fly ash brick (F), building slag brick (Z)