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

GB/T 13590-2022

Replacing GB/T 13590-2006

Steel slag and granulated furnace slag portland cement

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules for Standardization Documents" drafting. This document replaces GB/T 13590-2006 "Steel Slag Portland Cement". Compared with GB/T 13590-2006, except for structural adjustment and compilation. In addition to editorial changes, the main technical changes are as follows:

- a) Added the term and definition of "steel slag" (see 3.1);
- b) Changed the terms and definitions of "Steel Slag Portland Cement" (see 3.2, Chapter 3 of the 2006 edition);
- c) Added the regulations on components (see 4.1);
- d) The technical requirements for Portland cement clinker, steel slag, granulated blast furnace slag, gypsum and grinding aids have been changed (see 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6, 4.1, 4.2, 4.3, 4.4, 4.5 of the 2006 edition);
- e) Increase the limit and determination method of chloride ion (see 6.1.2, 7.1);
- f) Added the limit and determination method of water-soluble chromium (VI) (see 6.1.3, 6.2.5);
- g) Added the limit and determination method of alkali content (see 6.1.4, 7.1);
- h) Change the regulations on final setting time (see 6.2.2, 6.3 of the 2006 edition);
- i) Change the stability regulations (see 6.2.3, 7.6, 6.4, 7.4 of the 2006 edition);

1 Scope

GB/T 13590-2022 is the Chinese national standard on steel slag and granulated furnace slag portland cement, in the field of construction materials and building. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 December 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2023. Classification: ICS 91.100.10, CCS Q11. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the components, codes and materials, strength grades, technical requirements, test methods, and inspection specifications of steel slag and slag Portland cement. rules, packaging, marking, transportation and storage. This document applies to steel slag slag portland cement.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 176 Cement chemical analysis method

GB/T 203 Granulated blast furnace slag used in cement

GB/T 750 Cement pressure steam stability test method

GB/T 1346 Cement Standard Consistency Water Consumption, Setting Time, Stability Test Method GB/T 5483 Natural Gypsum

GB 6566 Limits of radionuclides in building materials

GB/T 8074 Cement Specific Surface Area Determination Method Blaine Method

GB/T 9774 cement packing bag

GB/T 12573 Cement Sampling Method

GB/T 17671 Test method for cement mortar strength (ISO method)

GB/T 18046 Granulated blast furnace slag powder used in cement, mortar and concrete

GB/T 20491 Steel slag powder used in cement and concrete

GB/T 21371 Industrial by-product gypsum used in cement

GB/T 26748 cement grinding aids

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Steel slag steelslag Silicate and ferrite formed from impurities in metal raw materials, flux and furnace lining discharged during the smelting process of converters, electric furnaces and refining furnaces Slag as the main component.

3.2 It is a hydraulic cementitious material made of Portland cement clinker, appropriate amount of gypsum, and a certain proportion of steel slag powder and granulated blast furnace slag.