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

GB/T 5762-2024

Replacing GB/T 5762-2012

**Methods for chemical analysis of limestone, quicklime and
hydrated lime for building materials industry**

建材用石灰石、生石灰和熟石灰化学分析方法

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

This document replaces GB/T 5762-2012 "Methods for chemical analysis of limestone, quicklime and hydrated lime for building materials". Compared with GB/T 5762-2012, apart from structural adjustments and editorial changes, the main technical changes are as

follows:

- a) changed the method for the determination of free silicon dioxide (see Clause 24; Clause 24 of the 2012 edition);
- b) deleted the determination of chloride ion - phosphoric acid distillation-mercury salt titration method (substitute method) (Clause 34 of the 2012 edition);
- c) deleted the determination of carbon dioxide - automatic photoelectric titration method (substitute method) (Clause 37 of the 2012 edition);
- d) added the determination of total sulfur - infrared analysis method (substitute method) (see Clause 34);
- e) added the determination of chloride ion - ion chromatography (substitute method) (see Clause 35);
- f) changed the determination of chloride ion - (automatic) potentiometric titration (substitute method) to "the analysis method shall be carried out in accordance with GB/T 176" (see Clause 36; Clause 35 of the 2012 edition);
- g) added the determination of ferric oxide, aluminium oxide, magnesium oxide, titanium dioxide, potassium oxide, sodium oxide, manganese monoxide and phosphorus pentoxide by inductively coupled plasma optical emission spectrometry (substitute method) (see Clause 38);
- h) added the determination of silicon dioxide, ferric oxide, aluminium oxide, calcium oxide, magnesium oxide, titanium dioxide, potassium oxide, sodium oxide, manganese monoxide, phosphorus pentoxide and chloride ion by X-ray fluorescence analysis (substitute method) (see Clause 39);
- i) added the determination of water-soluble chromium (VI) (see Clause 40).

Attention is drawn to the possibility that some of the content of this document may be the subject of patent rights. The issuing body of this document bears no responsibility for identifying such patent rights.

This document was proposed by the China Building Materials Federation.

This document is under the jurisdiction of the National Technical Committee on Cement of Standardization Administration of China (SAC/TC 184).

This document was first issued in 1986, revised for the first time in 2000, revised for the second time in 2012; this is the third revision.

1 Scope

This document describes the reference methods and the substitute methods for the chemical analysis of limestone, quicklime and hydrated lime.

This document applies to the chemical analysis of limestone, quicklime and hydrated lime for the building materials industry.

2 Normative references

The contents of the following documents constitute indispensable provisions of this document through normative reference in the text. For dated references, only the edition corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 176 Methods for chemical analysis of cement · GB/T 2007.1 General rules for the sampling and sample preparation of bulk mineral products - Manual sampling method · GB/T 6682 Water for analytical laboratory use - Specification and test methods · GB/T 8170 Rules of rounding off for numerical values and expression and judgement of limiting values · GB/T 28629 Method for chemical analysis of free silicon dioxide in cement clinker · GB 31893 Limit and determination method of water-soluble chromium (VI) in cement · JJG 196 Working glass containers