



**NATIONAL STANDARD OF THE
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GB/T 17671-2021

Test method of cement mortar strength (ISO method)

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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 17671-1999 "Method of testing cements--Determination of strength (ISO method)". Compared with GB/T 17671-1999, in addition to the structural adjustments and editorial modifications, the main technical changes in this document are as follows.

- a) Change the scope. Add circumstances in which this document is not applicable (see Chapter 1 of this Edition; Chapter 1 of Edition 1999);
- b) Write the alternative molding equipment and vibrator side by side (see 5.6.4.2 of this Edition; 11.7 of Edition 1999);
- c) Change the requirements for compressive strength testing machines (see 5.6.6 of this Edition; 4.2.7 of Edition 1999);
- d) Delete the provisions on "single-stage packaging" of China's ISO standard sand. Add storage requirements (see 6.1.3 of this Edition; 5.1.3 of Edition 1999);
- e) Add the provisions that cement samples be "mixed evenly before testing" (see 6.2 of this Edition);
- f) Change the water regulations for acceptance testing or disputes (see 6.3 of this Edition; 5.3 of Edition 1999);
- g) Change the forming and smoothing operations (see 8.2.1 of this Edition; 7.2.1 of Edition 1999);
- h) Change the numbering method of specimens (see 8.2.1 of this Edition; 8.1 of

Edition 1999);

- i) Add the requirement to cover the test mold with a cover plate during the curing period of the specimen (see 9.1 of this Edition);
- j) Add the requirement that water change shall not exceed 50% during maintenance (see 9.3 of this Edition);
- k) Change the rules for selecting flexural strength data (see 11.1.1 of this Edition;

10.2.1 of Edition 1999);

- l) Change the rules for selecting and rounding compressive strength data (see 11.2.1 of this Edition; 10.2.2 of Edition 1999);
- m) Delete the provision for qualification of laboratories. Add the provisions for acceptance testing. Change the out-of-tolerance processing method for comparative test data. Change the acceptance methods and procedures for China's ISO standard sand. Add the regulations on the quality report and content of Chinese ISO standard sand and alternative molding equipment (see Chapter 12 of this Edition; Chapter 11 of Edition 1999).

The revision of this document adopts ISO 679.2009 "Cement - Test methods - Determination of strength".

Add the chapter "Terms and definitions" in this document.

Compared with ISO 679.2009, the following structural adjustments are made in this document.

- Delete normative Annex A and incorporate the provisions regarding alternative equipment and test procedures into the corresponding provisions of the text.

The technical differences between this document and ISO 679.2009 and their reasons are as follows.

- Replace international documents with Chinese documents in normative reference documents. Add the instrument and equipment standards to simplify the description of instruments and equipment in the text;
- In 11.1.1, add the data processing provisions for flexural strength to clarify the data

processing method for flexural strength.

The following editorial changes have been made to this document.

- To coordinate with the existing standards, the name of the standard is changed to "Test method of cement mortar strength (ISO method)".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority shall not be held responsible for identifying any or all such patent rights.

This document was proposed by China Building Materials Federation.

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

The drafting organizations of this document. China Building Materials Research Institute Co., Ltd., Xiamen Aisio Standard Sand Co., Ltd., Anhui Conch Cement Co., Ltd., Zhejiang Lixian Testing Instrument Manufacturing Co., Ltd., Beijing Guojian Lianxin Certification Center Co., Ltd., Guangxi Jianke Construction Engineering Quality Inspection and Evaluation Co., Ltd., Yellow River Survey, Planning and Design Institute Co., Ltd., Henan Yumei Construction Engineering Inspection Co., Ltd. Division, Shenzhen Water Engineering Inspection Co., Ltd., Tianjin Yongyang Construction Engineering Quality Inspection Center, Guangxi Zhuang Autonomous Region Construction Engineering Quality Inspection Center, Wuxi Jianyi Instrument Machinery Co., Ltd., Anhui Architectural Research and Design Institute, Hunan Zhongda Inspection Technology Group Co., Ltd., Hebei Jinyu Dingxin Cement Co., Ltd., Wuxi Dongyi Manufacturing Technology Co., Ltd., Zhonghong Inspection and Certification Group Co., Ltd., Shenzhen Taike Inspection Co., Ltd., Gansu Road and Bridge Construction Group Co., Ltd., Hebei Jintao Construction Engineering Quality Inspection Co., Ltd. Company, Sichuan Lisen Building Materials Group Co., Ltd., Ningbo Sanjiang Inspection Co., Ltd., Hebei Sanyu Testing Machine Co., Ltd., CNCC Concrete Co., Ltd., Shenzhen Gangjia Engineering Inspection Co., Ltd., Shenzhen Jingheng Engineering Inspection Co., Ltd., Weifang Zhengxin Engineering Quality