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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 11969-2020

Replacing GB/T 11969-2008

Test methods of autoclaved aerated concrete

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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 11969-2008 "Test Method for Performance of Autoclaved Aerated Concrete", and compared with GB/T 11969-2008, except The main technical changes besides editorial changes are as follows:

---Added terms and definitions (see Chapter 2);

---Modified the requirements of test piece measuring instruments (see 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 2.1, 3.1, 4.1, 5.1, 6.1,

7.1 of the.2008 edition);

---Added the calculation method of volumetric water content and volumetric water absorption (see 3.5.3, 3.5.5);

---Modified the moisture content control method during the compressive strength test (see 4.2.7.2,

3.2.6.2 of the.2008 edition);

---Modified the drawing method of drying shrinkage characteristic curve (see 5.4.4.3,

4.4.4.3 of the.2008 edition);

--- Modified the frost resistance test method (see Chapter 6, Chapter 5 of the.2008 edition). This standard was proposed by the China Building Materials Federation. This standard is

under the jurisdiction of the National Cement Products Standardization Technical Committee (SAC/TC197). Drafting organizations of this standard. China Aerated Concrete Association, Tongji University, Zhejiang Kaiyuan New Wall Material Co., Ltd., Shantou Bo Environmental Protection Materials Co., Ltd., Changxing Yitong Co., Ltd., Anhui Keda Electromechanical Co., Ltd., Tianjin Building Material Product Quality Supervision and Testing Center, Guangzhou Zhoushan Development Environmental Protection Building Material Co., Ltd., Zhejiang Yuanzhu Housing Industrialization Co., Ltd., Jiangsu Ningguo Wear-resistant Material Co., Ltd., Zhoushan Quality Technology Technical Supervision and Testing Institute, Zhoushan Hongye Environmental Protection Material Co., Ltd., Zhejiang Tianda Environmental Protection Co., Ltd., Fujian Qunfeng Machinery Co., Ltd., Changzhou Building Materials Research Institute Co., Ltd., Zhejiang Hangjia Zetong Building Energy-saving New Materials Co., Ltd., Guangxi Lulin Building Materials Technology Co., Ltd. Company, Zhejiang Dexin New Material Co., Ltd., Yanshi Huatai Comprehensive Utilization Building Material Co., Ltd., Zhejiang Building Research Institute Co., Ltd. Company, Shaanxi Ningyuan New Material Technology Co., Ltd., Changzhou Jiangshan New Building Material Co., Ltd., Zhejiang Fengzhong Building Material Technology Co., Ltd. Co., Ltd., Guangxi Construction Engineering Group Construction Industry Investment Co., Ltd., Zhejiang Hengzun New Material Technology Co., Ltd., Hubei Chufeng Construction Group Jingzhou Kaiyuan New Materials Co., Ltd. The main drafters of this standard. Jiang Yong, Su Yufeng, Lu Jie, Cheng Caiyuan, Chen Hongping, Chen Xinjiang, Bai Xiqing, He Tieming, Zhou Jianguo, Lai Shaozhong, Liu Yi, Wang Mingjun, Xiong Haidong, Tian Senyue, Zhang Xiaohai, Li Cunjun, Ren Xiande, Wang Quansheng, Xu Yuxian, Yang Shangfu, Zhang Benjian, Dai Xiaojun, He Zhiang, Li Junqi, Chen Haiming, Ma Yingjie, Li Wenzhi, Shu Kai, Wu Kai, Zhang Hui, Liu Pinde, Sun Zhengyi, Hu Shijun, Zhu Ruisheng. The previous versions of the standard replaced by this standard are as follows:

---GB 11969-1989, GB/T 11969-1997, GB/T 11969-2008;

---GB 11970-1989, GB/T 11970-1997;

---GB 11971-1989, GB/T 11971-1997;

---GB 11972-1989, GB/T 11972-1997;

1 Scope

GB/T 11969-2020 is the Chinese national standard on test methods of autoclaved aerated concrete, 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 29 September 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2021. Classification: ICS 91.100.30, CCS Q14. 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 standard specifies the dry density, moisture content and water absorption of autoclaved aerated concrete, mechanical properties, drying shrinkage, frost resistance, carbonization, dry-wet cycle Test methods and test reports for items such as rings. This standard applies to autoclaved aerated concrete used in civil and industrial buildings.

2 Terms and definitions

The following terms and definitions apply to this document.

2.1 Sample A small amount of substance representing the value of the overall characteristic used for inspection.

Note. The sample includes autoclaved aerated concrete blocks, blocks of the same mold in the production of autoclaved aerated concrete slabs, end blocks or sawed parts in the board.

2.2 Specimen A small piece of material used for performance inspection test sawn to the specified size from the sample.

2.3 Contrastspecimen At the same time sawing in the same sample with the test piece for comparison or keeping another group of test pieces.

3.1 Instruments and laboratory

3.1.1 Electric heating blast drying oven. the highest temperature is.200°C.

3.1.2 Pallet balance or scale. Weigh.2000g, and sense 0.1g.

3.1.3 Steel plate ruler. the specification is 300mm, the graduation value is 1mm.

3.1.4 Vernier caliper or digital caliper. the specification is 300mm, and the graduation value is 0.1mm.

3.1.5 Constant temperature water tank. water temperature (20±2)°C.

3.1.6 Test room. room temperature (20±5)°C.

3.2 Specimen

3.2.1 The preparation of the test piece adopts a machine saw. The specimen should not be wetted during sawing.

3.2.2 A group of test pieces should be sawed up, middle and down in the center part of the product gas direction, and the upper surface of the "upper" block is away from the top surface of the product 30mm, the "middle" block is at the center of the product, and the

bottom surface of the "down" block is 30mm away from the bottom surface of the product.

3.2.3 The surface of the test piece should be flat without cracks or obvious defects. The allowable size deviation should be ±1mm, and the flatness should not be greater than 0.5mm. The verticality should not be greater than 0.5mm. The specimens shall be numbered block by block, and the specimens sawed from the same specimen shall be the same group of specimens, with "I, II, III "Means the group number; when the same group of test pieces has upper, middle and lower positions, the following marks "up, middle, and lower" indicate the position of the test piece; when the same group If there is no position requirement for the test piece, it shall be marked with "1, 2, 3" below to distinguish between different test pieces; parallel test pieces shall be marked with "I, II, III" and superscripted