ICS 91.100.15
CCS Q 21

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 9966.8-2025

Replacing GB/T 9966.8-2008

Test methods for natural stone - Part 8: Determination of test for structural performance of dimension stone cladding systems by uniform static pressure difference

天然石材试验方法 第8部分：用均匀静态压差检测石材挂装系统结构强度试验

Issued on: June 30, 2025 **Implemented on: January 1, 2026**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

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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 is required.

This document is Part 8 of GB/T 9966 "Test methods for natural stone". GB/T 9966 has been published in the following parts.

Part 1: Compressive strength test after drying, water saturation and freeze-thaw cycles;

Part 2: Flexural strength test after drying, water saturation and freeze-thaw cycles;

Part 3: Water absorption, bulk density, true density and true porosity test;

Part 4: Abrasion resistance test; Part 5: Hardness test;- Part 6: Acid resistance test;- Part 7: Hanging strength test of stone hanger assembly unit;

Part 8: Test for structural strength of stone hanging systems using uniform static pressure differential;

Part 9: Determination of dynamic elastic modulus by measuring the fundamental frequency of resonance;

Part 10.Determination of seismic performance of hanging assembly units;

Part 11.Determination of accelerated aging strength after chilling and heating;

Part 12.Determination of static elastic modulus;

Part 13.Determination of capillary water absorption coefficient;

Part 14.Determination of resistance to breaking energy;

Part 15.Determination of resistance to salt spray aging;

Part 16.Determination of coefficient of linear thermal expansion;

Part 17.Determination of salt crystallization strength;

Part 18.Petrographic analysis. - This document replaces GB/T 9966.8-2008 "Natural facing stone test methods Part 8: Testing stone hanging by uniform static pressure difference" Compared with GB/T 9966.8-2008, in addition to structural adjustments and editorial changes, the main technical changes are The following.

Added the term and definition of "limit load" (see 3.3); a) The term and definition of "failure load" have been deleted (see 2.3 of the 2008 edition); b) The overview of the test method principles has been changed (see Chapter 4, Chapter 3 of the 2008 edition); c) The test equipment, measuring instruments and schematic diagrams have been changed (see Chapter 5, Chapter 4 of the 2008 edition); d) The number of specimens, test procedures and result calculations have been changed (see Chapters 6 to 8, Chapters 5 to 7 of the 2008 edition). e) Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed by China Building Materials Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Stone Materials (SAC/TC 460).

This document was drafted by: Sinoma Synthetic Crystal Research Institute Co., Ltd., China National Testing and Inspection Holding Group Co., Ltd., and Universal Marble (FUJIAN) CO., LTD.

The main drafters of this document are: Zhou Junxing, Xu Wanfen, Zi Peng, Zhong Wenbo, Li Yongqiang, and Fang Maoyuan.

This document was first published in 2001, revised for the first time in 2008, and this is the second revision.

Introduction

GB/T 9966 "Natural Stone Test Methods" aims to help people understand the physical and

chemical properties of various natural stones and provide guidance for stone selection and design.

Provide a basis for design, production and processing, construction and installation, commercial application and maintenance, ensure the quality and safety of stone building decoration projects, and provide stone resources GB/T 9966 is composed of 18 parts.

Part 1: Compressive strength test after drying, water saturation and freeze-thaw cycles. The purpose is to specify the compressive strength of natural stone under various extreme conditions.

The compressive strength test method and applicable measurement range are as follows.

Part 2: Flexural strength test after drying, water saturation and freeze-thaw cycles. The purpose is to specify the flexural strength of natural stone under various extreme conditions.

Bending strength test method and applicable measurement range under.

Part 3: Water absorption, bulk density, true density, true porosity test. The purpose is to specify the use of drainage method to determine the water absorption, bulk density, true density, true porosity test of natural stone.

Test methods for water absorption, bulk density, true density and true porosity of materials and applicable measurement range.

Part 4: Abrasion resistance test. The purpose is to specify the abrasion resistance test of natural stone using the disc wear method and the grinding wheel grinding method.

Test method and applicable measurement range.

Part 5: Hardness test. The purpose is to specify the test method for determining the hardness of natural stone using Mohs hardness and Shore hardness and Applicable measurement range.

Part 6: Acid resistance test. The purpose is to specify the acid resistance test of natural stone using the sulfur dioxide wet gas corrosion method.

Test method and applicable measurement range.

Part 7: Test for the hanging strength of stone hanger assembly units. The purpose is to specify the use of a single pull-out method to determine the strength of stone hanger assembly units.

Unit hanging strength test method and applicable measurement range.

Part 8: Testing the structural strength of stone hanging systems using uniform static pressure differential.

The test method for the structural strength of the stone hanging system and the applicable

measurement range.

Part 9: Determination of dynamic elastic modulus by measuring the fundamental frequency of resonance.

The test method for dynamic elastic modulus of stone and its applicable measurement range are determined.

Part 10.Determination of seismic performance of hanging assembly units. The purpose is to specify the determination of seismic performance of stone hanging units by 100,000 repeated tension and compression methods.

Test method for seismic performance of composite units and applicable measurement range.

Part 11.Determination of accelerated aging strength by chilling and heating. The purpose is to specify the determination of the resistance of stone to chilling and heating by high and low temperature catastrophic method.

Performance test methods and applicable measurement range.

Part 12.Determination of static elastic modulus. The purpose is to specify the test method for determining the static elastic modulus of stone by pressure deformation and applicable measurement range.

Part 13.Determination of capillary water absorption coefficient. The purpose is to specify the test method for determining the capillary water absorption coefficient by the water absorption rate of stone and applicable measurement range.

Part 14.Determination of fracture energy. The purpose is to specify the test method and applicable The measurement range used.

Part 15.Determination of resistance to salt spray aging. The purpose is to specify the test method for determining the resistance to salt spray aging of stone using the salt spray method.

and applicable measurement range.

Part 16.Determination of linear thermal expansion coefficient. The purpose is to specify the determination of linear thermal expansion coefficient of stone by mechanical measurement and thermal expansion instrument measurement.

Test method for thermal expansion coefficient and applicable measurement range.

Part 17.Determination of salt crystallization strength. The purpose is to specify the test method for determining the salt crystallization strength of stone using the sodium sulfate solution immersion method.

Method and applicable measurement range.