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

GB/T 47190-2026

**Method for determining the air content of cement mortar -
Pressure method**

水泥胶砂含气量测定方法 压力法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the China Building Materials Federation. This document is under the jurisdiction of the National Cement Standardization Technical Committee (SAC/TC184). This document was drafted by: China Building Materials Academy Co., Ltd., Xiamen Aisiou Standard Sand Co., Ltd., and Anhui Provincial Expressway Group Co., Ltd. Highway Testing and Research Center Co., Ltd., China Three Gorges Corporation, China National Building Materials Zhongyan Technology Co., Ltd., China National Inspection and Quarantine Corporation Test Holding Group Co., Ltd., China Nuclear Huachen Construction Engineering Co., Ltd., China Water Resources and Hydropower No.

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1 Scope

GB/T 47190-2026 is the Chinese national standard covering the entrained air in a mortar - measured by pressure, and the property that decides frost resistance in one direction and strength in the other, which is why it is controlled rather than maximised. First edition, in force since 1 September 2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, as a first edition. The document is under the responsibility of the China Building Materials Federation. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes a method for determining the air content in cement mortar using a pressure method. This document applies to the determination of air content in general silicate cement and masonry cement mortar.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories

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

GB/T 45002 Method for Determination of Water Retention Rate of Cement Mortar JC/T 681 Planetary Cement Mortar Mixer

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.Measurement Principle Freshly mixed cement mortar of a specified consistency was pressurized using an air content analyzer. The reduction in gas volume within the mortar after pressurization was measured. The air content of freshly mixed mortar was calculated

using a small value.

5 Laboratory Environment and Materials

5.1 Laboratory Environment The temperature of the laboratory should be maintained at $20^{\circ}\text{C}\pm 2^{\circ}\text{C}$, and the relative humidity should not be less than 50%.

5.2 Test water Use drinking water. In case of dispute, use Grade III water that meets the requirements of GB/T 6682.

5.3 Standard Sand It meets the requirements of GB/T 17671.

6 Instruments and Equipment

6.1 Balance The measuring range should be no less than 5000g, and the scale division should be no greater than 0.1g.