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

GB/T 8811-2008

**Test method for dimensional stability of rigid cellular plastics
(English Translation)**

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Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Terms and definitions...	4
4 Principle...	4
5 Instruments...	5
6 Specimens and preparation...	5
7 Test methods...	5
8 Results representation...	7
9 Test report...	7

Foreword

This standard identically adopts ISO 2796.1986 "Cellular plastics, rigid - Test for dimensional stability".

This standard makes only the following editorial modifications to ISO 2796.1986.

- ADJUST the order of some clauses in Article 7.3 "Test procedures";
- DELETE the statements regarding precision and accuracy in ISO 2796.1986.

This standard is a revision of GB/T 8811-1988 "Rigid cellular plastics - Test method for dimensional stability".

The main differences between this standard and GB/T 8811-1988 are as follows.

- ADD the foreword;
- ADD the terms and definitions;
- SPECIFY that the given specimen size is the minimum size;
- CHANGE the placement time of the specimen after removal from the selected test conditions from 1 hour to 1 ~ 3 hours;
- ADD the information on the "Arithmetic mean of the rate of dimensional change" to the test report.

This standard replaces GB/T 8811-1988, from the date of its implementation.

This standard was proposed by the China National Light Industry Council.

This standard shall be under the jurisdiction of the National Technical Committee on Standardization of Plastics Products.

The drafting organizations of this standard. Beijing Plastics Research Institute, Beijing Technology and Business University.

1 Scope

This standard specifies a method for determining the dimensional stability of rigid cellular plastics under specific temperature and relative humidity conditions.

This standard is applicable to the determination of the dimensional stability of rigid cellular plastics.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 2918-1998 Plastics - Standard atmospheres for conditioning and testing (idt ISO 291.1997)

GB/T 6342-1996 Cellular plastics and rubbers - Determination of linear dimensions (idt ISO 1923.1981)

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1

Dimensional stability

The irreversible dimensional change in three mutually perpendicular directions that occurs after a specimen has been placed under specific temperature and relative

humidity conditions for a certain period of time.

4 Principle

The change in linear dimensions of a specimen is measured, after it has been placed under specified test conditions for a certain period of time and conditioned under a standard environment.

5.1 Constant temperature or humidity chamber

Any constant temperature or humidity chamber capable of meeting the test conditions required in 7.1.

5.2 Measuring instruments

Measuring instruments for measuring the linear dimensions of the specimen shall conform to the requirements of GB/T 6342-1996.

6.1 Specimen preparation

Specimens shall be cut from the sample by sawing or other mechanical processing methods, ensuring the specimen surface is flat and free of cracks. Unless otherwise specified, the outer layer of the cellular plastic shall be removed.

6.2 Specimen dimensions

The specimen shall be a cuboid, which has a minimum dimension of (100 ± 1) mm x (100 ± 1) mm x (25 ± 0.5) mm.

6.3 Number of specimens

For any selected test conditions, at least three specimens shall be tested for each sample.

6.4 Conditioning

The specimens shall be conditioned according to GB/T 2918-1998, at a temperature of (23 ± 2) °C and a relative humidity of 45% ~ 55%.

7.1.1 Select test conditions from the following.

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