

ICS 83.100
CCS G30



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

GB/T 10799-2008

Replacing GB 10799-1989

**Rigid cellular plastics - Determination of the volume percentage
of open cells and of closed cells**

硬质泡沫塑料 开孔和闭孔体积百分率的测定

Issued on: January 4, 2008

Implemented on: September 1, 2008

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

This standard is GB/T 10799-1989 "rigid foam volume percentage of open and closed test method" amendment, the original test Li made reference to the international standard ISO 4590.2002 "rigid foam volume percentage of open and closed cells measured" reference test method ASTM D6226-05 "rigid foam Test Method for opening percentage." This standard replaces GB/T 10799-1989. This standard compared with GB/T 10799-1989 main changes are as follows:

--- Test instrument and method of operation change. GB/T 10799-1989, respectively, using pressure variation method and volume expansion measurement method. The amount of impermeable volume, the use of instruments and methods of operation are not the same; only the measurement of the standard volumetric expansion method impermeable volume.

--- Test sample size change. GB/T 10799-1989 volume expansion method in the detection of sample size. length x width x thickness (100mm x 30mm x 30mm); this standard, the standard sample is two cubes, dimensions. 2.5cm x 2.5cm x 2.5cm. Another alternative is the two cylindrical shape, whose cross-sectional size of 6.25cm², height 2.5cm.

--- Open, closed porosity change in calculation methodology. GB/T 10799-1989 detection data plotted by extrapolation; this standard directly To detect data calculated by relevant formulas.

--- The method of cutting the surface of the cell formation change correction. GB/T 10799-1989 to surface area and volume of various geometric. At least three sets of samples, each take three samples, the apparent opening measurement sample volume fraction, and then plotted extrapolated correction; this Standard, directly to a single test sample with a blade parallel to the surface of each of the two samples cut along three sides of each cube. Third Two cubes produced a total of 16 smaller cubes, the surface area exposed and the number of openings bubble generated by cutting. Add as a double, then this measure is calculated to obtain a correction value. Appendix B of this standard is a normative appendix, Appendix A is an information appendix. The standard proposed by China National Light Industry Council. This standard by the National Standardization Technical Committee of plastic products. This standard was drafted. Jiangsu Province Product Quality Supervision and Inspection Institute, Beijing Technology and Business

University. The main drafters of this standard. Wang Yan, Zhu Yuhong, Zhou Xiaoling, Gan Chao, Chen Qian. This standard replaces the standards previously issued as follows:

--- GB/T 10799-1989. Rigid Foam Determination of the volume percentage of open and closed cells

1 Scope

GB/T 10799-2008 is the Chinese national standard on rigid cellular plastics - determination of the volume percentage of open cells and of closed cells, in the field of rubber and plastic industries. 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 4 January 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 September 2008. Classification: ICS 83.100, CCS G30. 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 rigid foam volume of open and closed cell percentage determination. This standard applies to containing the polymer membrane or the cell wall is divided into many small cell foam, the cell may be perforated (phase Pass) or closed (non-communicating) or these types of compound.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6342-1996 foam rubber - Determination of linear dimensions (idt ISO 1923. 1981) Accuracy

GB/T 6379.4-2006 Measurement methods and results (trueness and precision) - Part 4. Determine the standard measurement direction The basic method of method accuracy (ISO 5725-4.1994, IDT)

GB/T 8810-2005 rigid foam water absorption (ISO 2896.2001, MOD)

GB/T 12811-1991 rigid foam average cell size of the test method

ISO 4590.2002 Rigid foams of open and closed volume percentage of test methods

3 Terms and definitions, symbols

3.1 Terms and Definitions The following terms and definitions apply to this standard.

3.1.1 Closed cell, and not other cell communication.

3.1.2 The cell wall is not completely closed, and the other cell, directly or indirectly connected.

3.1.3 The internal volume of the gas can not be adopted, including the solid polymer volume (cell walls, pillars), filling volume, the use of solid particles or fibers Victoria closed cell volume caused by the individual and aggregate due to the rupture of the cell walls are interconnected but a group of small cell size and external communication is not.

3.1.4 Including the internal volume of the cell material and water seepage caused by cutting the surface of various irregular openings volume. The following symbols apply to this standard.