

ICS 83.100

CCS G 30



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

GB/T 22936-2008

Phenolic floral foam

花卉用酚醛泡沫塑料

Issued on: December 30, 2008

Implemented on: September 1, 2009

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

Table of Contents

1	Scope
2	Normative references
3	Terms and definitions
4	Product classification
5	Requirements
5.1	Specification
5.2	Performance indicators
6	Test methods
7	Inspection rules
7.1	Classification of inspection
7.2	Batching and sampling
7.3	Decision rules
8	Marking, packaging, transport and storage

Foreword

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

This standard is under the jurisdiction of the National Technical Committee on Plastic Products of Standardization Administration of China.

The drafting organisations of this standard are the Changshu Plastics Factory and Changshu Lvzhou Floral Foam Co., Ltd.

1 Scope

China's national standard for the phenolic foam block used by florists - the green brick that a flower arrangement is stuck into. Its job is unusual for a foam: it has to drink up water almost instantly, hold several times its own volume of it against gravity for days, and stay firm enough that a cut stem pushed into it stays where it is put and can still draw water through the cut. Those requirements pull against each other, which is why the properties controlled here are saturation time, water absorption, water-keeping and compression strength in both the rise direction and across it, and why the pH of the leachate is controlled as well: water too acid or too alkaline shortens the life of the cut flowers the block is meant to keep. The standard specifies the terms and definitions, the product classification, the requirements, the test methods, the inspection rules and the marking, packaging, transport

and storage of the material, and applies to the phenolic foam made from liquid phenolic resin for flower arranging and for keeping cut flowers fresh. Products are classified by production method into mould-foamed and continuously foamed, and by strength into general purpose and reinforced grades.

This standard specifies the terms and definitions, the product classification, the requirements, the test methods and the inspection rules for phenolic foam for flowers (hereinafter referred to as floral foam), together with its marking, packaging, transport and storage.

This standard applies to the phenolic foam made from liquid phenolic resin and used for flower arranging and for keeping cut flowers fresh.

2 Normative references

The clauses of the following documents become clauses of this standard through reference in this standard. For dated references, all subsequent amendments (excluding corrigenda) or revisions do not apply to this standard; however, parties to agreements based on this standard are encouraged to investigate whether the latest editions of these documents may be used. For undated references, the latest edition applies to this standard.

GB/T 6342-1996 Cellular plastics and rubbers - Determination of linear dimensions.

GB/T 6343-1995 Cellular plastics and rubbers - Determination of apparent (bulk) density.

3 Terms and definitions

The following terms and definitions apply to this standard.

3.1 Saturation time: the time required for the floral foam to be completely saturated in water.

3.2 Water absorption: the ratio of the mass of water absorbed by the floral foam after saturation to its volume.

3.3 Water-keeping: the ratio of the mass of water contained in the floral foam after it has been saturated and then left on a rack for a specified time, to the mass of water contained before it was left.

3.4 Top compression: the compression strength in the direction of the rise of the foam.

3.5 Side compression: the compression strength in the direction perpendicular to the direction of the rise of the foam.

3.6 Mould foaming: foaming carried out in a mould.

3.7 Continue foaming: continuous foaming.

4 Product classification

According to the method of production the products are divided into mould-foamed and continuously foamed; according to strength they are further divided into two grades, the general purpose type and the reinforced type.

5.1 Specification

The specification dimensions of floral foam shall meet the requirements of Table 1. Table 1 gives the length, the width and the height of the standard type with their deviations, in millimetres; a note adds that other specification dimensions may be produced to the user's requirement.

5.2 Performance indicators

The performance indicators of floral foam shall meet the requirements of Table 2. Table 2 sets the appearance requirement - the cells shall be uniform and fine and the surface free from serious depressions or broken corners - and then fixes, separately for the mould-foamed and the continuously foamed product and for the general purpose and reinforced grades, the apparent density, the immersion time, the water absorption, the water-keeping, the pH value of the leachate and the compression strength in the rise direction and across it.

6 Test methods

6.1 Test piece: the samples are cut after the skin has been removed from the product.

6.2 Conditioning and test environment: 6.2.1 the test pieces are conditioned for at least 24 h at a specified temperature and relative humidity; 6.2.2 the tests are carried out under the same conditions of temperature and relative humidity.

6.3 Specification dimensions: measured by the method specified in GB/T 6342-1996, using a vernier caliper.

6.4 Appearance: examined visually in natural light.

6.5 Apparent density: the apparent core density is measured as specified in GB/T 6343-1995, on three test pieces of the standard specification.

6.6 Saturation time and water absorption; 6.7 and 6.8 cover the further immersion properties; 6.9 covers the compression strength, and specifies the compression testing machine, the size of the test piece, the test procedure and the calculation of the result from the maximum force and the area of the movable plate.

7.1 Classification of inspection

7.1.1 Factory inspection: the factory inspection items are the appearance, the apparent density, the saturation time, the water absorption and the water-keeping.

7.1.2 Type inspection: the type inspection covers all the items of Clause 5, and shall be carried out in any of the following cases: a) once every half year in normal production; b) when there is a major change in the formulation, the process or the raw materials of the product; c) when production is resumed after having been suspended for half a year; d) when the national quality supervision and inspection body requires a type inspection.

7.2 Batching and sampling

7.2.1 Batching: product of the same raw material, the same formulation and the same process conditions forms one batch, subject to a ceiling on the mass of a batch.

7.2.2 Sampling: three test pieces shall be taken at random from the cut and formed product.

7.3 Decision rules

7.3.1 When the dimensional limit deviations and the appearance of all three samples conform, the batch is judged conforming; if any one item of any one of them fails to conform, the non-conforming product shall be removed from the batch and a fresh sample taken, and if it still fails to conform the batch is judged non-conforming.

7.3.2 When one of the performance indicators fails to conform, a double sample shall be taken again from the same batch and the non-conforming items re-inspected; if all the re-inspection results conform, the batch is judged conforming, otherwise the batch is judged non-conforming.

8 Marking, packaging, transport and storage

8.1 The product packing case shall carry a marking stating the name of the manufacturer, the address of the works, the product name, the specification, the date of production, the batch number, the quantity and the standard number, among other particulars.

8.2 The product shall be packed in cardboard cases, or as required by the user; the packaging shall meet the relevant requirements for transport and protection.

8.3 During transport the product shall not be heavily loaded, thrown down or knocked against sharp objects, and shall be protected from rain.

8.4 The product shall be stored indoors in a dry, ventilated place, and should not be exposed to the sun.