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

GB/T 46225-2025

**Flexible cellular polymeric materials - Polyurethane foam for
laminated use - Specification**

(English Translation)

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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.

This document is modified to adopt ISO 6915:2019 "Specification for polyurethane foam for lamination of flexible porous polymer materials".

This document has undergone the following structural adjustments compared to ISO 6915:2019.

---3.1 corresponds to A.2 in ISO 6915:2019;

---A fourth chapter, "Classification," has been added;

---Chapter 5 corresponds to Chapters 4 through 10 of ISO 6915:2019 regarding product requirements;

---Chapter 6 corresponds to Chapters 4 through 10 of ISO 6915:2019 regarding test methods;

---Chapter 7 corresponds to Chapter 11 of ISO 6915:2019;

---Appendix A corresponds to Appendix B of ISO 6915:2019; A.4.1 corresponds to B.4 and B.5 of ISO 6915:2019; A.4.2 corresponds to...

In ISO 6915:2019, B.6.1 and A.4.3 correspond to B.6.2 and A.5 in ISO 6915:2019.

---Appendix B corresponds to Annexes A and B.2 of ISO 6915:2019; Annexes A.3 and B.3 correspond to Annexes A.3 and B.3 of ISO 6915:2019.

In 2019, A.4 was removed from ISO 6915:2019, and B.4 corresponds to A.6 in ISO 6915:2019.

The technical differences between this document and ISO 6915:2019, and the reasons

therefor, are as follows.

---The scope and its representation have been changed (see Chapter 1 of ISO 6915:2019) to conform to GB/T 1.1-2020.

Drafting guidelines;

---Added visual inspection methods (see 6.2) to facilitate standardized inspection methods and avoid unnecessary errors;

---A new method for measuring width has been added (see 6.3) to facilitate standardized measurement and avoid unnecessary errors;

---The method for measuring length has been changed (see 6.3, 7.3 of ISO 6915:2019) to facilitate measurement by testing organizations;

---Requirements and test methods for compression set, springback, and compressive stress-strain characteristics have been added (see 5.3.1, 5.3.2, and 6.4.4).

Sections 6.4.5 and 6.4.6) facilitate a more comprehensive and accurate reflection of the performance characteristics of the foam material, standardize testing methods, and avoid unnecessary complications.

The required error;

---An evaluation method for odor intensity has been added (see 6.4.8) to facilitate a standardized evaluation approach and avoid unnecessary errors;

---A test method for joint strength has been added (see 6.4.10) to facilitate the standardization of test methods and avoid unnecessary errors.

The following editorial changes have been made to this document.

---Use the form "< 4" instead of "lessthan4" to indicate the range of dimensions;

--- Replace descriptions such as "minimum value" and "maximum value" with ">=" and "<=";

---The tolerance zone will now be represented in the form of "40 0";

---The format of Table 3 has been changed.

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 Petroleum and Chemical Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Rubber and Rubber Products (SAC/TC35).

1 Scope

This document specifies the appearance, dimensions, and performance requirements for flexible polyurethane foam materials used in lamination (hereinafter referred to as foam materials), and describes the relevant specifications.

The corresponding test methods are specified, the contents of packaging and labeling are defined, and product classification information is provided to facilitate technical specifications.

This document applies to the production and inspection of foam materials with a thickness not exceeding 20 mm.

Note: Foam materials are used in combination with suitable substrates (such as nonwoven, woven or knitted fabrics) to form laminates.

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 6342 Determination of linear dimensions of foamed plastics and rubber (GB/T 6342-1996, ISO 1923:1981, IDT) GB/T 6343 Determination of apparent density of foamed plastics and rubber (GB/T 6343-2009, ISO 845:2006, IDT) GB/T 6670-2008 Determination of rebound properties of flexible foam polymer materials by falling ball method (ISO 8307:2007, MOD) GB/T 10653-2001 Determination of compressive set (ISO 1856:1980, IDT) of porous polymer elastic materials GB/T 10654 Determination of tensile strength and elongation at break of porous polymeric elastic materials (GB/T 10654-2001, ISO 1798.

1997, IDT)

GB/T 14274 Accelerated aging test of porous polymer elastic materials (GB/T 14274-2003, ISO 2440:1997, IDT) GB/T 18942 (all parts) Determination of compressive stress-strain properties of porous polymeric elastic materials [ISO 3386 (all parts)] point)] Note. GB/T 18942.1-2003 Determination of compressive stress-strain properties of porous polymeric elastic materials-Part 1: Low-density materials (ISO 3386-1.

1986, IDT)

GB/T 18942.2-2003 Determination of compressive stress-strain properties of porous polymeric elastic materials-Part 2: High-density materials (ISO 3386-2.

1997, IDT)

GB/T 35773 Evaluation of Odor of Packaging Materials and Products HG/T 3262 Industrial Tetrachloroethylene

3 Terms and Definitions

The following terms and definitions apply to this document.

Number of cells celcount the number of cells per 100 mm length in a foam material under specified temperature and humidity conditions.

4 Classification

Foam materials are classified according to their material and performance as follows.