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

GB/T 21558-2025

Replacing GB/T 21558-2008

Rigid polyurethane foam for building thermal insulation

建筑绝热用硬质聚氨酯泡沫塑料

(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 supersedes GB/T 21558-2008 "Rigid Polyurethane Foam for Building Insulation" and is consistent with GB/T 21558-2008.

Compared to previous versions, aside from structural adjustments and editorial changes, the main technical changes are as follows.

---The term and definition of "rigid polyurethane foam" have been added (see 3.1);

---The classification and grading have been changed, adding grading by compression performance, grading by combustion performance, and grading by thermal insulation performance (see section 4).

Chapter 3 (2008 edition);

---The requirements for compression performance and dimensional stability have been changed (see 5.2.1, 4.4 in the 2008 version);

---Added dimensional stability requirements for rigid polyisocyanurate foam (see 5.2.2);

---The combustion performance requirements have been changed (see 5.3, 4.5 in the 2008 version);

---Insulation performance requirements have been added (see 5.4);

---Added numerical rounding requirements (see 6.4);

---Identification requirements have been changed (see Chapter 8, 7.1 of the 2008 edition).

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 National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Plastic Products (SAC/TC48).

1 Scope

This document defines the terminology and definitions for rigid polyurethane foam for building insulation, and specifies its classification, requirements, inspection rules, and labeling.

Transportation and storage are described, along with the corresponding test methods.

This document applies to the production, sale, and inspection of rigid polyurethane foam for building insulation.

This document does not apply to sprayed rigid polyurethane foam for building insulation and rigid polyurethane foam for piping.

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 2035 Plastics Terminology GB/T 2918 Standard Environment for Conditioning and Testing of Plastic Specimens GB/T 6342 Determination of linear dimensions of foamed plastics and rubber GB/T 6343 Determination of apparent density of foamed plastics and rubber GB/T 8170 Rules for rounding off numerical values and the representation and determination of limiting values GB 8624 Classification of fire performance of building materials and products GB/T 8810 Determination of water absorption rate of rigid foamed plastics GB/T 8811 Test method for dimensional stability of rigid foamed plastics GB/T 8813 Determination of compressive properties of rigid foamed plastics GB/T 10294 Determination of steady-state thermal resistance and related properties of thermal insulation materials - Protective hot plate method GB/T 10295 Determination of steady-state thermal resistance and related properties of thermal insulation materials - heat flow meter method GB/T 15048 Rigid Foamed Plastics - Compression Creep Test Method GB/T 19687 Determination of Long-Term Thermal Resistance Changes in Closed-Cell Plastics - Accelerated Laboratory Test Method GB/T 20672 Determination of compression creep of rigid foamed plastics under specified load and temperature conditions GB/T 21332 Determination of water vapor permeability of rigid foamed plastics GB 46520 Technical Specification for Fire Performance of Thermal Insulation Materials and Products for Buildings GB 50016 Code for Fire Protection Design of Buildings (2018 Edition) GB 50072

Cold Storage Design Standard GB 55037 General Code for Fire Protection of Buildings

3 Terms and Definitions

The terms and definitions defined in GB/T 2035 and the following terms and definitions apply to this document.

Rigid foam based on polyurethane or polyurethane/isocyanurate six-membered ring groups.