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

GB/T 10801.2-2025

Replacing GB/T 10801.2-2018

**Rigid extruded polystyrene foam (XPS) board for thermal
insulation**

绝热用挤塑聚苯乙烯泡沫塑料(XPS)

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1 Scope

GB/T 10801.2-2025 is the Chinese national standard on rigid extruded polystyrene foam (xps) board for thermal insulation, 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 31 December 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2026. Classification: ICS 83.100, CCS G32. 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 document specifies the classification, requirements, inspection rules, marking, labeling, instructions for use, packaging, transportation, and storage of rigid extruded polystyrene foam for thermal insulation, and describes the corresponding test methods. This document applies to rigid extruded polystyrene foam (XPS) for thermal insulation with a service temperature not exceeding 75 °C, including rigid extruded polystyrene foam with and without a skin, rigid extruded polystyrene foam with special edge structures and surface treatments, and also includes the production, inspection, and sale of rigid extruded polystyrene foam modified with additives such as graphite. This document applies to the production, inspection, and sale of rigid extruded polystyrene foam for thermal insulation in precast components, underfloor heating systems, and composite insulation systems.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 2035 Plastics - Vocabulary

GB/T 2918-2018 Plastics - Standard atmospheres for conditioning and testing

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

GB/T 8170 Rules of rounding off for numerical values & expression and judgement of limiting values

GB 8624 Classification for burning behavior of building materials and products

GB/T 8810 Determination of water absorption of rigid cellular plastics

GB/T 8811 Test method for dimensional stability of rigid cellular plastics

GB/T 8813 Rigid cellular plastics - Determination of compression properties

GB/T 10294 Thermal insulation - Determination of steady-state thermal resistance and related properties - Guarded hot plate apparatus

GB/T 10295 Thermal insulation - Determination of steady-state thermal resistance and related properties - Heat flow meter apparatus

GB/T 21332 Rigid cellular plastics - Determination of water vapour transmission properties

GB 46520 Burning behavior safety technical specification of thermal insulation materials and products for building

GB 50016 Code for fire protection design of buildings (2018 edition)

3 Terms and definitions

For the purpose of this document, the terms and definitions defined in GB/T 2035 apply.

4.1 Categories

4.1.1 Based on the compression property p and skin of the product, it is divided into the following 14 grades.

- a) X 150- $p \geq 150$ kPa, with a skin;
- b) X 200- $p \geq 200$ kPa, with a skin;
- c) X 250- $p \geq 250$ kPa, with a skin;

- d) X 300-p $\geq$ 300 kPa, with a skin;
- e) X 350-p $\geq$ 350 kPa, with a skin;
- f) X 400-p $\geq$ 400 kPa, with a skin;
- g) X 450-p $\geq$ 450 kPa, with a skin;
- h) X 500-p $\geq$ 500 kPa, with a skin;
- i) X 700-p $\geq$ 700 kPa, with a skin;
- j) X 900-p $\geq$ 900 kPa, with a skin;
- k) X 1200-p $\geq$ 1200 kPa, with a skin;

4.2 Product marking

4.2.1 Marking method Marking method. Product name, serial number of this document-compression property grade-edge structure type-burning behavior grade-thermal insulation performance grade.

4.2.2 Marking example Rigid extruded polystyrene foam with a compression property grade of X 250, an edge structure of overlapping on both sides, a burning behavior grade of B1, and a thermal insulation performance grade of 024 is marked as. XPS GB/T 10801.2-2025-X250-SL-B1-024.

5.1 Specifications and allowable deviations

5.1.1 Specifications The main specifications of XPS shall comply with the provisions of Table