

ICS 91.120.10

CCS P32



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

GB/T 30595-2024

**Extruded polystyrene (XPS) board system for building thermal
insulation**

建筑保温用挤塑聚苯板（XPS）系统材料

Issued on: September 29, 2024

Implemented on: April 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope ...	1
2 Normative references ...	1
3 Terms and Definitions ...	2
4 General requirements ...	3
5 Technical requirements ...	5
5.1 XPS board thin plaster exterior wall insulation system ...	5
5.2 XPS board precast concrete sandwich insulation exterior wall panel system ...	8
5.3 XPS floor insulation system ...	9
5.4 XPS board roof insulation system ...	9
6 Test methods ...	10
6.1 Maintenance conditions and test environment ...	10
6.2 Numerical rounding ...	10
6.3 XPS board thin plaster exterior wall insulation system ...	10
6.4 XPS board for precast concrete sandwich insulation exterior wall panel system ...	14
6.5 XPS board for floor insulation system ...	14
6.6 XPS board for roof insulation system ...	15
7 Inspection Rules ...	16
7.1 Factory Inspection ...	16
7.2 Type inspection ...	16
7.3 Batching and Sampling ...	17
8 Logo and accompanying documents ...	17
8.1 Logo ...	17
8.2 Accompanying Documents ...	17
9 Packaging, transportation and storage ...	18
9.1 Packaging ...	18
9.2 Transportation ...	18
18 Appendix A (Normative) XPS board compression deformation test method ...	19
A.1 Test instruments and equipment	19
A.2 Test specimen	19
A.3 Test process	19
A.4 Test results	20

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for

standardization work Part

1. Structure and drafting rules for standardization documents" Drafting is required. This document replaces GB/T 30595-2014 "Extruded polystyrene board (XPS) thin plaster external wall insulation system materials" and Compared with GB/T 30595-2014, in addition to structural adjustments and editorial changes, the main technical changes are as follows: Changed the scope (see Chapter 1, Chapter 1 of the.2014 edition);

a) Deleted the base wall, plastering layer, finishing layer, protective layer, adhesive, plastering mortar, fiberglass mesh, plastic anchor bolts, accessories Terms and definitions (see 3.2~3.5, 3.8~

3.12 of the.2014 edition);

b) Added XPS board precast concrete sandwich insulation exterior wall panel system, XPS board wet floor insulation system, XPS board dry floor insulation system Terms and definitions of surface insulation system and XPS board roof insulation system (see

c) The general provisions have been deleted (see Chapter 4 of the.2014 edition);

d) Added general requirements (see Chapter 4);

e) Changed the technical requirements for XPS boards and plastering mortar used in XPS board thin plastering external wall insulation system (see 5.1.2, 5.1.5,.2014 Version 5.2, 5.5);

f) Added XPS board precast concrete sandwich insulation exterior wall panel system, XPS board floor insulation system, XPS board roof insulation system Technical requirements for XPS boards (see 5.2~5.4);

g) The XPS board thin plaster exterior wall insulation system and its compression strength, bending deformation, dimensional stability, water vapor Test method for air permeability coefficient (see 6.3.1, 6.3.2.4~6.3.2.6, 6.3.2.8, 6.3.1, 6.4.7,.2014 edition) 6.4.3, 6.4.4, 6.4.7);

h) Added XPS board precast concrete sandwich insulation exterior wall panel system, XPS board floor insulation system, XPS board roof insulation system Test method for XPS board (see

i) The factory inspection items and type inspection items have been changed (see 7.1.1, 7.2.1, 7.2.1,.2014 edition 7.2.1, 7.3.1);

j) Deleted the product certificate and instruction manual (see Chapter 8 of the.2014 edition);

k) Added logo and accompanying files (see Chapter 8);

1 Scope

GB/T 30595-2024 covers extruded polystyrene board systems for building thermal

insulation in China. XPS is used because it combines low thermal conductivity with the compressive strength and near-zero water absorption that let it be used below grade, under floors and in inverted roofs, but as an external wall system it is the hardest of the common insulants to bond reliably, since its smooth closed skin resists adhesion and its dimensional movement is greater than the render can accommodate unless the system is designed for it. The standard covers the system rather than the board alone: it sets the general requirements and then the technical requirements for the thin-render external wall insulation system and the other system types, specifying the board itself, its density, compressive strength, thermal conductivity, dimensional stability and water absorption, together with the adhesives, the anchors, the reinforcing mesh, the base coat and finish, and the performance of the assembled system in bond strength, impact resistance, water tightness, freeze-thaw and fire behaviour. It then gives the test methods and the inspection rules. It takes effect on 1 April 2025.

This document specifies the general requirements, technical requirements, inspection rules, marking and Accompanying documents, packaging, transportation and storage, describe the corresponding test methods. This document is applicable to thin plaster exterior wall insulation system materials with extruded polystyrene board as insulation material, precast concrete sandwich insulation exterior wall Production and application of board system materials, floor insulation system materials, and roof insulation system materials.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies. in this document.

GB/T 2406.2 Determination of combustion behavior of plastics by oxygen index method
Part

3 Determination of mass per unit area

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

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

GB 12952 Polyvinyl chloride (PVC) waterproofing membrane

GB/T 15036.1 Solid wood flooring Part

5 Determination of tensile strength and elongation at break of glass fibers

GB/T 8170 Rules for rounding off values and expression and determination of limit values

GB 8624 Classification of combustion performance 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 8812.1 Determination of flexural properties of rigid cellular plastics Part