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# Rigid cellular plastics — Thermal insulation products for buildings — Specifications

*Plastiques alvéolaires rigides — Produits d'isolation thermique pour bâtiments — Spécifications*

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# Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 10, *Cellular plastics*.

This sixth edition cancels and replaces the fifth edition (ISO 4898:2010), of which it constitutes a minor revision.

The changes compared to the previous edition are as follows:

— product Category IV has been removed as this type of product is not made.

# Rigid cellular plastics — Thermal insulation products for buildings — Specifications

## 1 Scope

This document specifies requirements and methods of testing for three categories of rigid cellular plastics thermal-insulation products for buildings. It covers rigid cellular plastics in the form of flat or profiled boards, with or without natural skins. They can also be faced or laminated with foil, plastic or metal films or sheets, mineral coatings, paper, cardboard or other materials.

This document is not applicable to materials used for the thermal insulation of pipes and vessels, for impact sound absorption or for acoustical insulation.

This document covers the following cellular materials used in the thermal insulation of buildings:

— PF based on phenolic polymer;

— EPS based on expanded polystyrene;

— XPS based on extruded polystyrene;

— PUR based on polyurethane.

The limiting quality values in this document are for use only in the specification of materials between purchaser and supplier, and are not intended to be used for design purposes.

Additional requirements for special applications can be added to those specified in this document by agreement between purchaser and supplier.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 844, *Rigid cellular plastics — Determination of compression properties*

ISO 845, *Cellular plastics and rubbers — Determination of apparent density*

ISO 1040, *Building construction — Modular coordination — Multimodules for horizontal coordinating dimensions*

ISO 1209-1, *Rigid cellular plastics — Determination of flexural properties — Part 1: Basic bending test*

ISO 1663, *Rigid cellular plastics — Determination of water vapour transmission properties*

ISO 1923, *Cellular plastics and rubbers — Determination of linear dimensions*

ISO 2796, *Cellular plastics, rigid — Test for dimensional stability*

ISO 2896, *Rigid cellular plastics — Determination of water absorption*

ISO 7616, *Cellular plastics, rigid — Determination of compressive creep under specified load and temperature conditions*