
**Thermal insulation products —
Aerogel blanket for buildings —
Specification**

*Produits isolants thermiques — Aérogels en matelas pour les
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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

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Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Aerogel insulations are widely used globally because of their superior properties including ease of handling and effective insulating performance. Testing of aerogel insulation to meet sustainable construction needs provides users with a basis for choosing the insulation.

Thermal insulation products — Aerogel blanket for buildings — Specification

1 Scope

This document specifies the requirements for factory-made aerogel blankets, which are used for the thermal insulation of building applications. This document specifies insulation that exhibits thermal insulating performance through high porosity and nano-sized pores by compounding aerogel with net-like fibrous material, e.g. polyester, glass fibre, ceramic fibre. The products are delivered as a blanket type.

This document describes product characteristics and includes procedures for testing, evaluation of conformity and marking and labelling.

This document does not specify the required level of a given property to be achieved by a product to demonstrate fitness for purpose in a particular application.

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 846:2019, *Plastics — Evaluation of the action of microorganisms*

ISO 8301, *Thermal insulation — Determination of steady-state thermal resistance and related properties — Heat flow meter apparatus*

ISO 8302, *Thermal insulation — Determination of steady-state thermal resistance and related properties — Guarded hot plate apparatus*

ISO 10456, *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values*

ISO 12576-1, *Thermal insulation — Insulating materials and products for buildings — Conformity control systems — Part 1: Factory-made products*

ISO 12624, *Thermal insulating products for building equipment and industrial installations — Determination of trace quantities of water soluble chloride, fluoride, silicate, sodium ions and pH*

ISO 16535, *Thermal insulating products for building applications — Determination of long-term water absorption by immersion*

ISO 29465, *Thermal insulating products for building applications — Determination of length and width*

ISO 29466, *Thermal insulating products for building applications — Determination of thickness*

ISO 29469, *Thermal insulating products for building applications — Determination of compression behaviour*

ISO 29470, *Thermal insulating products for building applications — Determination of the apparent density*

ISO 29767, *Thermal insulating products for building applications — Determination of short-term water absorption by partial immersion*