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Thermal insulating products for building equipment and industrial installations — Determination of maximum service temperature for preformed pipe insulation

Produits isolants thermiques pour l'équipement du bâtiment et les installations industrielles — Détermination de la température maximale de service des coquilles isolantes préformées

Reference number
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Foreword

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This document was prepared by Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 1, *Test and measurement methods*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 88, *Thermal insulating materials and products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 18096:2013), which has been technically revised.

The main changes are as follows:

— EN 14707:2012 and ISO 18096:2013 have been merged into one document;

— editorial revisions.

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.

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Thermal insulating products for building equipment and industrial installations — Determination of maximum service temperature for preformed pipe insulation

1 Scope

This document specifies the equipment and procedures for determining the maximum service temperature for preformed pipe insulation. It is applicable to thermal insulating products.

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 5725-2:2019, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 12628, *Thermal insulating products for building equipment and industrial installations — Determination of dimensions, squareness and linearity of preformed pipe insulation*

ISO 16544, *Thermal insulating products for building applications — Conditioning to moisture equilibrium under specified temperature and humidity conditions*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
maximum service temperature
highest temperature at which the thermal insulation product, when installed at the recommended thickness in a given application, continues to function within specified limits of performance

Note 1 to entry: The required performance may be in the areas of dimensional stability, thermal properties, and mechanical properties, as well as changes in appearance and resistance against creation of hazards such as internal self-heating (see annexes and requirements in the relevant product standard).

Note 2 to entry: The test procedure in this document, which is used as a reference, the test specimen is exposed to a temperature difference going from ambient to the maximum service temperature. This may not reflect the actual application conditions when products are exposed to different temperatures on the two main faces, e.g. in multi-layer systems or for faced products where the facing may limit the maximum service temperature.

[SOURCE: ISO 9229:2020, 3.6.9.1, modified — Notes 1 and 2 to entry have been added.]

4 Principle

The thickness and length shall be measured after one sided heat treatment for a specified time period, at the maximum service temperature, achieved using a specified rate of temperature increase. The

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