



SLOVENSKI STANDARD
oSIST prEN ISO 9229:2019
01-september-2019

Toplotna izolacija - Slovar (ISO/DIS 9229:2019)

Thermal insulation - Vocabulary (ISO/DIS 9229:2019)

Wärmedämmung - Begriffe (ISO/DIS 9229:2019)

Isolation thermique - Vocabulaire (ISO/DIS 9229:2019)

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Thermal insulation — Vocabulary

Isolation thermique — Vocabulaire

ICS: 27.220; 01.040.27

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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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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.

This document was prepared by Technical Committee [or Project Committee] ISO/TC 163, "*Thermal performance and energy use in the built environment*".

This **third** edition cancels and replaces the **second** edition (ISO 9229:2007), which has been technically revised.

The main changes compared to the previous edition are as follows:

- Incorporation of the majority of comments received through the CD ballot
- Alignment of some of the definitions to EN 14303 and ISO 52000

A list of all parts in the ISO ##### series can be found on the ISO website.

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.

Thermal insulation - Vocabulary

1. Scope

This International Standard establishes a vocabulary of terms used in the field of thermal insulation covering materials, products, components and applications. Some of the terms may have a different meaning when used in other industries or applications.

NOTE - In addition to terms used in English and French, two of the three official ISO languages (English, French and Russian), this document gives the equivalent terms in German; these are published under the responsibility of the member body for Germany (DIN), and are given for information only. Only the terms and definitions given in the official languages can be considered as ISO terms and definitions.

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2. Normative references

There are no normative references in this document.

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3. Terms and definitions

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

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1 Thermal insulation materials

3.1.1

thermal insulation material

a substance that is intended to reduce heat transfer and that derives its insulation properties from its chemical nature, its physical structure or both

3.1.2

cellular plastic

thermal insulation materials made from plastic, in which the density is reduced by the presence of numerous small cavities (cells), which may be interconnecting or not, dispersed throughout the material

3.1.2.1

expanded polystyrene

EPS

rigid cellular plastic thermal insulation material manufactured by moulding beads of expandable polystyrene or one of its co-polymers and that has a substantially closed-cell structure, filled with air

3.1.2.2

extruded polystyrene foam

XPS

rigid cellular plastic insulation material expanded and extruded from polystyrene or one of its co-polymers and that has a closed-cell structure

3.1.2.3

flexible elastomeric foam

FEF

flexible foam made of natural or synthetic rubber, or a mixture of the two, and containing other polymers and other chemicals that may be modified by organic or inorganic additives

3.1.2.4

phenolic foam

PF

rigid cellular plastic thermal insulation material, the polymer structure of which is made primarily from the poly-condensation of phenol, its homologues and/or derivatives with aldehydes or ketones

3.1.2.5

polyethylene foam

PEF

semi-rigid or flexible cellular plastic insulation material based on polymers derived mainly from ethylene and/or propylene

3.1.2.6

polyurethane foam

PUR

rigid or semi-rigid cellular plastic insulation material with a substantially closed-cell structure based on polyurethanes

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3.1.2.7**urea formaldehyde foam****UF**

cellular plastic insulation material with a substantially open-cell structure, based on an amino resin made by the polycondensation of urea with formaldehyde

3.1.2.8**expanded polyvinyl chloride**

rigid or semi-rigid cellular plastic insulation material based on vinyl chloride polymers expanded to form a cellular structure consisting substantially of closed cells

3.1.2.9**polyisocyanurate foam****PIR**

rigid cellular plastic insulation material with a substantially closed-cell structure based on polymers mainly of the isocyanurate type

3.1.3**cellular glass****CG**

rigid insulation material made from expanded glass with a closed-cell structure

3.1.4**calcium silicate****CC**

thermal insulation material comprised of calcium oxide and silicon dioxide, normally reinforced by incorporating fibres

3.1.5**aluminosilicate wool****ASW**

amorphous High Temperature Insulating Wool (HTIW) predominantly produced by melting a combination of Al_2O_3 and SiO_2 , and may contain ZrO_2 and Cr_2O_3

3.1.6**magnesia**

thermal insulation material, composed principally of basic magnesium carbonate that incorporates fibre as a reinforcing agent

3.1.7**expanded clay**

lightweight granular material used for insulation purposes, having a cellular structure formed by expanding clay minerals by heat

3.1.8**expanded perlite****perlite**

lightweight granular material used for insulation purposes, manufactured from naturally occurring volcanic rock, expanded by heat to form a cellular structure

3.1.9**exfoliated vermiculite****vermiculite**

insulation material that results from expanding or exfoliating a natural micaceous mineral by heating

3.1.10**diatomaceous insulation**

insulation material composed mainly of the skeletons of diatoms (cellular siliceous particles of microscopic size)

Note 1 to entry: It is available in the form of a powder, bonded or granular material. See 3.2.10.

3.1.11**expanded rubber**

cellular rubber having closed cells, made from a solid rubber compound

3.1.12**cellulose insulation****CI**

fibrous insulation derived from paper, paperboard stock or wood,

3.1.13**cork**

protective layer of the cork oak tree (*Quercus Suber* L), which can be periodically removed from its trunk and branches to provide the raw material for cork products

3.1.14**fibrous insulation**

thermal insulation material composed of naturally occurring or manufactured fibres

3.1.15**wood wool****WW**

long shavings of wood

3.1.16**hemp wool****HW**

insulation material composed of hemp fibres

3.1.17**sheep wool**

thermal insulation material composed of sheep wool

3.1.18**mineral fibre**

general term for all non-metallic inorganic fibre [g/standards/sist/bb4c764a-8167-45c1-b564-885d0ca73a5d/sist-en-iso-9229-2020](https://standards.sist.org/standards/sist/bb4c764a-8167-45c1-b564-885d0ca73a5d/sist-en-iso-9229-2020)

3.1.18.1**ceramic fibre**

inorganic fibre manufactured from metal oxides or clays

3.1.19**mineral wool****MW**

generic term for fibrous insulation manufactured from molten rock, slag or glass

3.1.19.1**glass wool**

mineral wool manufactured predominantly from natural sand or molten glass

3.1.19.2**stone wool**

mineral wool manufactured predominantly from molten naturally occurring igneous rock

3.1.19.3**slag wool**

mineral wool manufactured predominantly from molten furnace slag