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Standards

Irish Standard  
I.S. EN ISO 9229:2020

# Thermal insulation - Vocabulary (ISO 9229:2020)

**I.S. EN ISO 9229:2020**

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NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

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## National Foreword

I.S. EN ISO 9229:2020 is the adopted Irish version of the European Document EN ISO 9229:2020, Thermal insulation - Vocabulary (ISO 9229:2020)

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EUROPEAN STANDARD

EN ISO 9229

NORME EUROPÉENNE

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Supersedes EN ISO 9229:2007

English Version

## Thermal insulation - Vocabulary (ISO 9229:2020)

Isolation thermique - Vocabulaire (ISO 9229:2020)

Wärmedämmung - Begriffe (ISO 9229:2020)

This European Standard was approved by CEN on 9 June 2020.

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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN ISO 9229:2020 (E)**

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## **European foreword**

This document (EN ISO 9229:2020) has been prepared by Technical Committee ISO/TC 163 "Thermal performance and energy use in the built environment" in collaboration with Technical Committee CEN/TC 88 "Thermal insulating materials and products" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **Endorsement notice**

The text of ISO 9229:2020 has been approved by CEN as EN ISO 9229:2020 without any modification.

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# INTERNATIONAL STANDARD

**ISO  
9229**

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## **Thermal insulation — Vocabulary**

*Isolation thermique — Vocabulaire*



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CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
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## ISO 9229:2020(E)

### 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](http://www.iso.org/directives)).

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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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, 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 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:

- revised ETICS definition;
- thorough review of cross-references with numerous new additions and corrections;
- double term entries have been either given their own terminology entries or identified as preferred and accepted terms;
- circular definitions have been corrected;
- pipe section superordinate concept changed as parent term and subordinate terms expanded to 1) concentric pipe section, 2) precision v-groove pipe section, 3) cut pipe section, 4) moulded pipe section;
- vapour barrier and vapour retarder definitions have been revised and clarified.

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](http://www.iso.org/members.html).

# Thermal insulation — Vocabulary

## 1 Scope

This document provides a vocabulary of terms used in the field of thermal insulation that covers materials, products, components and applications. Some of the terms can have a different meaning when used in other industries or applications.

## 2 Normative references

There are no normative references in this document.

## 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**

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 material* (3.1.1) 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* (3.1.2) *thermal insulation material* (3.1.1) 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* (3.1.2) *thermal insulation material* (3.1.1) made from polystyrene or one of its co-polymers, which has a closed-cell structure and is produced through an extrusion process

##### 3.1.2.3

##### **flexible elastomeric foam**

##### **FEF**

pliable *thermal insulation product* (3.2.1) 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

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