

**Ehituses kasutatavad
soojustusmaterjalid. Tasakaaluniiskuse
nõuetega vastavusse viimine määratud
temperatuuri- ja niiskustingimustes**

Thermal insulating products for building applications
- Conditioning to moisture equilibrium under
specified temperature and humidity conditions

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12429:2000 sisaldab Euroopa standardi EN 12429:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12429:2000 consists of the English text of the European standard EN 12429:1998.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: See Euroopa standard määrab kindlaks seadmed ja moodused soojustusmaterjalide vastavusse viimiseks tasakaaluniiskusega temperatuuri (23 ± 2) °C ja relatiivse niiskuse (50 ± 5)% juures. Standard kehtib ka vormitud pealispinnaga soojustustoodete kohta, kuid pole tavaliselt oluline vooderdatud või mõne muu pinnatöötlemisega toodete korral.</p>	<p>Scope:</p>
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ICS 91.100.60

Võtmesõnad: hooned, hügroskoopsüsteimid, niiskus, proovikeha ettevalmistamine, sisuline määramine, soojaisolatsioon, soojustusmaterjalid, teimid

ICS 91.120.10

Descriptors: Thermal insulation, insulating materials, moisture equilibrium, testing.

English version

Thermal insulating products for building applications

Conditioning to moisture equilibrium under specified temperature
and humidity conditions

Produits isolants thermiques destinés
aux applications du bâtiment – Condi-
tionnement jusqu'à l'équilibre
hygroscopique dans des conditions de
température et d'humidité spécifiées

Wärmedämmstoffe für das Bauwesen –
Einstellen der Ausgleichsfeuchte bei
definierten Temperatur- und Feuchte-
bedingungen

This European Standard was approved by CEN on 1998-06-25.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 88 "Thermal insulating materials and products", the secretariat of which is held by DIN.

This European Standard is one of a series of standards which specify test methods for determining dimensions and properties of thermal insulating materials and products. It supports a series of product standards for thermal insulating materials and products which derive from the Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products (Directive 89/106/EEC) through the consideration of the essential requirements.

This European standard contains the following normative annex:

Annex A - Determination of limiting value of moisture content change and conditioning time factor by experiment

and two informative annexes:

Annex B - Computer calculations to determine the limiting value of moisture content change

Annex C - Calculations of conditioning time to reach equilibrium using the Fourier number

This European Standard has been drafted for applications in buildings but it may also be used in other areas where it is relevant.

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 1998, and conflicting national standards shall be withdrawn at the latest by December 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies equipment and procedures to condition a thermal insulating product to equilibrium moisture content at $(23 \pm 2)^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity.

The standard is also applicable to thermal insulating products with moulded skins but is not normally relevant for faced products or for products with other surface treatments.

NOTE 1: The normally specified moisture content is the result of the equilibrium between the atmosphere and the product at $(23 \pm 2)^\circ\text{C}$ and $(50 \pm 5) \%$ relative humidity. The standard may also be used if a product has to be conditioned to other relative humidities.

NOTE 2: The moisture equilibrium may - due to hysteresis effects - differ depending on whether the equilibrium has been reached by absorption or by desorption. In addition perfect equilibrium may require a very long time to be reached. Therefore it is necessary to accept equilibrium within a certain accuracy.

NOTE 3: For products which do not absorb moisture, conditioning is not needed. It should nevertheless be ensured that there is no water on the surface before testing.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of these publications apply to this draft European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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| EN 12085 | Thermal insulating products for building applications - Determination of linear dimensions of test specimens |
| prEN ISO 12571 | Building materials - Determination of hygroscopic sorption curves (ISO/DIS 12571:1996) |

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this standard, the following definitions apply:

3.1.1 atmosphere 23/50: A controlled atmosphere at a temperature of $(23 \pm 2)^\circ\text{C}$ and a relative humidity of $(50 \pm 5) \%$.

3.1.2 hygroscopic range: Moisture content in equilibrium with 98 % relative humidity or lower.

3.1.3 equivalent time, Δt_e : d^2 hours, where d is the numerical value of the test specimen thickness in centimetres.