

EHITUSMATERJALID ja –TOOTED. Soojus- ja niiskustehnilised omadused. Projekteerimisel kasutatavad tabelväärtused

Building materials and products - Hygrothermal properties - Tabulated design values

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12524:2006 sisaldab Euroopa standardi EN 12524:2000 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 12.09.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.04.2000.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12524:2006 consists of the English text of the European standard EN 12524:2000.

This standard is ratified with the order of Estonian Centre for Standardisation dated 12.09.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

ICS 91.100.01, 91.120.10

Võtmesõnad: ehitusmaterjalid, ehitustoode, soojusisolatsioon

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ICS 91.100.01; 91.120.10

English version

**Building materials and products – Hygrothermal
properties**

Tabulated design values

Matériaux et produits pour le
bâtiment – Propriétés hygro-
thermiques – Valeurs utiles tabulées

Baustoffe und -produkte – Wärme-
und feuchteschutztechnische
Eigenschaften – Tabellierte
Bemessungswerte

This European Standard was approved by CEN on 2000-03-11.

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CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 89 "Thermal performance of buildings and building components", the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by October 2000, and conflicting national standards shall be withdrawn at the latest by December 2001.

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.

This standard is one of a series of standards for the evaluation of the thermal performance of building materials and products.

1 Scope

This standard gives design data in tabular form for heat and moisture transfer calculations, for thermally homogeneous materials and products commonly used in building construction.

It also gives data to enable the calculation and conversion of design thermal values for various environmental conditions.

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 any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN ISO 7345 Thermal insulation - Physical quantities and definitions (ISO 7345:1987)

EN ISO 9346 Thermal insulation - Mass transfer - Physical quantities and definitions (ISO 9346:1987)

EN ISO 10456 Building materials and products – Procedures for determining of declared and design thermal values (ISO 10456:1999)

3 Definitions, symbols and units

3.1 Definitions

For the purposes of this standard, the terms and definitions given in EN ISO 7345, EN ISO 9346 and the following apply.

3.1.1

declared thermal value

expected value of a thermal property of a building material or product

- assessed from measured data at reference conditions of temperature and humidity;
- given for a stated fraction and confidence level;
- corresponding to a reasonable expected service lifetime under normal conditions

[EN ISO 10456]

3.1.2

design thermal value

value of thermal property of a building material or product under specific external and internal conditions which can be considered as typical of the performance of that material or product when incorporated in a building component

[EN ISO 10456]

3.2 Symbols and units

<u>Symbol</u>	<u>Quantity</u>	<u>Unit</u>
c_p	specific heat capacity at constant pressure	J/(kg·K)
f_u	moisture conversion coefficient, mass by mass ¹	kg/kg
f_v	moisture conversion coefficient, volume by volume ²	m ³ /m ³
s_d	water vapour diffusion-equivalent air layer thickness	m
u	moisture content, mass by mass ²	kg/kg
λ	thermal conductivity	W/(m·K)
ρ	density	kg/m ³

¹ For conversion of thermal properties.

² Mass of evaporable water divided by dry mass of material.