SLOVENSKI STANDARD
kSIST FprEN 1606:2012

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Toplotnoizolacijski proizvodi za uporabo v gradbeništvu - Ugotavljanje lezenja pod tlačno obremenitvijo

Thermal insulating products for building applications - Determination of compressive creep

Wärmestoffe für das Bauwesen - Bestimmung des Langzeit-Kriechverhaltens bei Druckbeanspruchung

Produits isolants thermiques destinés aux applications du bâtiment - Détermination du fluage en compression

Ta slovenski standard je istoveten z: **FprEN 1606**

ICS:

91.100.60	Materiali za toplotno in zvočno izolacijo	Thermal and sound insulating materials

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English Version

Thermal insulating products for building applications - Determination of compressive creep

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Foreword

This document (FprEN 1606:2012) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 1606:1996.

The revision of this standard contains no major changes only minor corrections and clarifications of editorial nature.

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

This EN test standard is one of the following group of interrelated standards on test methods for determining dimensions and properties of thermal insulation materials and products, all of which come within the scope of CEN/TC 88:

EN 822, *Thermal insulating products for building applications — Determination of length and width*

EN 823, *Thermal insulating products for building applications — Determination of thickness*

EN 824, *Thermal insulating products for building applications — Determination of squareness*

EN 825, *Thermal insulating products for building applications — Determination of flatness*

EN 826, *Thermal insulating products for building applications — Determination of compression behaviour*

EN 1602, *Thermal insulating products for building applications — Determination of the apparent density*

EN 1603, *Thermal insulating products for building applications — Determination of dimensional stability under constant normal laboratory conditions (23 °C/50 % relative humidity)*

EN 1604, *Thermal insulating products for building applications — Determination of dimensional stability under specified temperature and humidity conditions*

EN 1605, *Thermal insulating products for building applications — Determination of deformation under specified compressive load and temperature conditions*

EN 1606, *Thermal insulating products for building applications — Determination of compressive creep*

EN 1607, *Thermal insulating products for building applications — Determination of tensile strength perpendicular to faces*

EN 1608, *Thermal insulating products for building applications — Determination of tensile strength parallel to faces*

EN 1609, *Thermal insulating products for building applications — Determination of short-term water absorption by partial immersion*

EN 12085, *Thermal insulating products for building applications — Determination of linear dimensions of test specimens*

EN 12086, *Thermal insulating products for building applications — Determination of water vapour transmission properties*

EN 12087, *Thermal insulating products for building applications — Determination of long-term water absorption by immersion*

EN 12088, *Thermal insulating products for building applications — Determination of long-term water absorption by diffusion*

EN 12089, *Thermal insulating products for building applications — Determination of bending behaviour*

EN 12090, *Thermal insulating products for building applications —Determination of shear behaviour*

EN 12091, *Thermal insulating products for building applications — Determination of freeze-thaw resistance*

EN 12429, *Thermal insulating products for building applications — Conditioning to moisture equilibrium under specified temperature and humidity conditions*

EN 12430, *Thermal insulating products for building applications — Determination of behaviour under point load*

EN 12431, *Thermal insulating products for building applications — Determination of thickness for floating floor insulating products*

EN 13793, *Thermal insulating products for building applications — Determination of behaviour under cyclic loading*

EN 13820, *Thermal insulating products for building applications — Determination of organic content*

1 Scope

This European Standard specifies the equipment and procedures for determining the compressive creep of specimens under various conditions of stress. It is applicable to thermal insulating products.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 826, *Thermal insulating products for building applications — Determination of compression behaviour*

EN 12085, *Thermal insulating products for building applications — Determination of linear dimensions of test specimens*

ISO 5725-2, *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*

3 Terms and definitions

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

3.1
thickness
linear dimension measured perpendicular to the length and width plane

3.1.1
thickness
d
original product thickness

3.1.2
thickness
d_S
thickness of the specimen

3.1.3
thickness
d_L
thickness of the specimen under the basic compressive stress of the loading device ('dead weight')

3.1.4
thickness
d_0
thickness of the specimen 60 s after the beginning of the loading process

3.1.5
thickness
d_t
thickness of the specimen at a given time, t

3.2
compressive stress
σ_c
ratio of the compressive force to the initial surface area of the cross section of the specimen

3.3
deformation
X
reduction in thickness of the specimen

3.4
relative deformation
ε
ratio of the deformation of the specimen, X, and its thickness d_S, measured in the direction of loading

3.5
compressive creep
X_{ct}
increase in deformation of the specimen under a constant stress with time under specified conditions of temperature and humidity

$$X_{ct} = X_t - X_0$$

where

X_t is the deformation at time t;

X_0 is the initial deformation (after 60 s from the beginning of loading)

Note 1 to entry: An illustration of the different thicknesses and deformations is given in Figure 1.