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**Toplotnoizolacijski proizvodi za uporabo v gradbeništvu - Določanje deformacij pri predpisani tlačni obremenitvi in temperaturi**

Thermal insulating products for building applications - Determination of deformation under specified compressive load and temperature conditions

Wärmedämmstoffe für das Bauwesen - Bestimmung der Verformung bei definierter Druck- und Temperaturbeanspruchung

Produits isolants thermiques destinés aux applications du bâtiment - Détermination de la déformation sous charge en compression et conditions de température spécifiées

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**Ta slovenski standard je istoveten z: EN 1605:1996/A1:2006**

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**ICS:**

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

**SIST EN 1605:1997/A1:2007**                      **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 1605:1996/A1**

September 2006

ICS 91.120.10

English Version

**Thermal insulating products for building applications -  
Determination of deformation under specified compressive load  
and temperature conditions**

Produits isolants thermiques destinés aux applications du  
bâtiment - Détermination de la déformation sous charge en  
compression et conditions de température spécifiées

Wärmedämmstoffe für das Bauwesen - Bestimmung der  
Verformung bei definierter Druck- und  
Temperaturbeanspruchung

This amendment A1 modifies the European Standard EN 1605:1996; it was approved by CEN on 17 August 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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.

This amendment exists 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom/A1:2007

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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

**EN 1605:1996/A1:2006 (E)****Foreword**

This document (EN 1605:1996/A1:2006) has been prepared by Technical Committee CEN/TC 88 "Thermal insulating materials and products", the secretariat of which is held by DIN.

This Amendment to the European Standard EN 1605:1996 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2007, and conflicting national standards shall be withdrawn at the latest by March 2007.

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

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## 2 Normative references

One new reference is added as follows:

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*

### 5.3 Loading device

The following note shall be added at the end of the paragraph:

"NOTE The two flat plates should be finely ground/polished. The distance between the upper plate and the reading device should be as short as possible. The zero setting of the deformation measurement should be done using a calibrated steel block approximately of the same thickness as the product to be tested".

## 9 Accuracy of measurement

The note given in clause 9 shall be replaced with the following text:

"An interlaboratory test was performed with eight laboratories. Three products were tested.

The results were analysed according to ISO 5725-2.

The results from the test are given in the Tables 2 and 3:

**Table 2 – Percentage deformation under specified conditions (stress 20 kPa, temperature 23 °C, time 48 h) in percent %**

| Test conditions                               | Relative deformations after step A of the test: $\epsilon(d1)$ |  |                          |  |                            |
|---|--|--|--------------------------|--|----------------------------|
|   | Range of measured $\epsilon_1$                                 | Estimate of repeatability variance $S_r$ | 95 % repeatability limit | Estimate of reproducibility variance $S_R$ | 95 % reproducibility limit |
| Stress 20kPa<br>temperature 23°C<br>time 48 h | - 0,2 to 2,9   | 0,2                                      | 0,5                      | 0,4  | 1,2                        |

## EN 1605:1996/A1:2006 (E)

**Table 3 – Percentage deformation under specified conditions (stress 20 kPa, temperature 80 °C, time 48 h) in percent %**

| Test conditions                               | Relative deformations after step B of the test: $\epsilon(d_2)$ |  |                          |  |                            |
|---|---|--|--------------------------|--|----------------------------|
|   | Range of measured $\epsilon_2$                                  | Estimate of repeatability variance $S_r$ | 95 % repeatability limit | Estimate of reproducibility variance $S_R$ | 95 % reproducibility limit |
| Stress 20kPa<br>temperature 80°C<br>time 48 h | - 0,3 to 7,5  | 0,3                                      | 0,8                      | 0,8  | 2,0                        |

All values given in the Tables 1 and 2 are expressed in percentage deformation.

For all other test conditions the accuracy is expected to be the same.

The above mentioned terms are applied as described in ISO 5725-2.

Bias cannot be determined in this test method as there is not any accepted reference material for it.

NOTE The choice of products was selected to get a wide range of dimensional changes. The testing conditions were chosen to get a large variation in test results."

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