



SLOVENSKI STANDARD
kSIST FprEN 13472:2012

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**Toplotnoizolacijski proizvodi za opremo stavb in industrijske inštalacije -
Ugotavljanje vpojnosti vode predoblikovanih cevni izolacij z delno potopitvijo po
kratkotrajnem postopku**

Thermal insulating products for building equipment and industrial installations -
Determination of short term water absorption by partial immersion of preformed pipe
insulation

Wärmedämmstoffe für die Haustechnik und für betriebstechnische Anlagen -
Bestimmung der Wasseraufnahme bei kurzzeitigem teilweisem Eintauchen von
vorgeformten Rohrdämmstoffen

Produits isolants thermiques pour l'équipement du bâtiment et les installations
industrielles - Détermination de l'absorption d'eau à court terme par immersion partielle
des coquilles isolantes préformées

Ta slovenski standard je istoveten z: FprEN 13472

ICS:

91.100.60	Materiali za toplotno in zvočno izolacijo	Thermal and sound insulating materials
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en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
FprEN 13472

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ICS 91.100.60

Will supersede EN 13472:2001

English Version

Thermal insulating products for building equipment and industrial installations - Determination of short term water absorption by partial immersion of preformed pipe insulation

Produits isolants thermiques pour l'équipement du bâtiment et les installations industrielles - Détermination de l'absorption d'eau à court terme par immersion partielle des coquilles isolantes préformées

Wärmedämmstoffe für die Haustechnik und für betriebstechnische Anlagen - Bestimmung der Wasseraufnahme bei kurzzeitigem teilweisem Eintauchen von vorgeformten Rohrdämmstoffen

This draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 88.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Foreword

This document (FprEN 13472:2012) 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 13472:2001.

The following main technical changes have been done on this new edition of EN 13472:

- a) Figure 1 has been corrected;
- b) Subclause 5.3, Tap water has been supplemented.

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 standard contains one informative annex:

- Annex A - Table with examples of calculation of the length of the test specimens.

This European Standard has been prepared for products used to insulate building equipment and industrial installations, but it may also be applied to products used in other areas.

FprEN 13472:2012 (E)

1 Scope

This European Standard specifies the equipment and procedures for determining the short term water absorption of preformed pipe insulation by partial immersion in water. It is applicable to thermal insulating products.

NOTE It is intended to simulate the water absorption caused by exposure to rain for 24 h during product installation.

If the pipe insulation is cut from a flat product, then the short term water absorption by partial immersion can be obtained from tests carried out on the flat product with similar properties in accordance with EN 1609, providing the test is carried out in the direction giving the highest water uptake.

2 Normative references

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

EN 13467, *Thermal insulating products for building equipment and industrial installations — Determination of dimensions, squareness and linearity of preformed pipe insulation*

3 Terms and definitions

This European Standard contains no terms and definitions.

4 Principle

The short term water absorption by partial immersion is determined by measuring the change in mass of a test specimen, the lower part of which is in contact with water for a period of 24 h.

The excess water adhering to the surface and not absorbed by the test specimen is drained of in method A or calculated, in method B, from the initial water uptake.

5 Apparatus

5.1 Balance capable of determining the mass of a test specimen to an accuracy of 0,1 g or 0,5 % whichever is less.

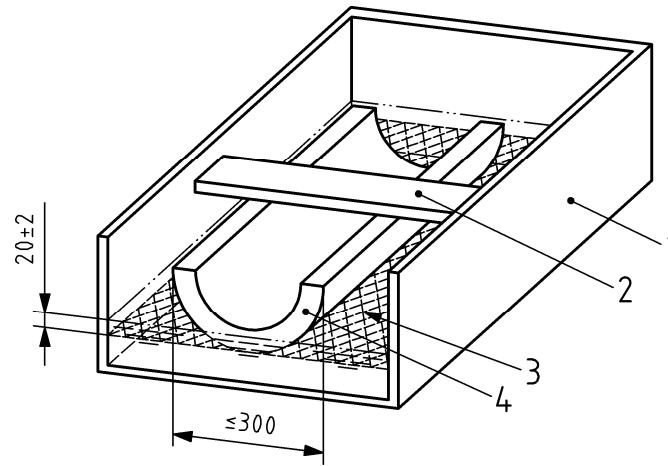
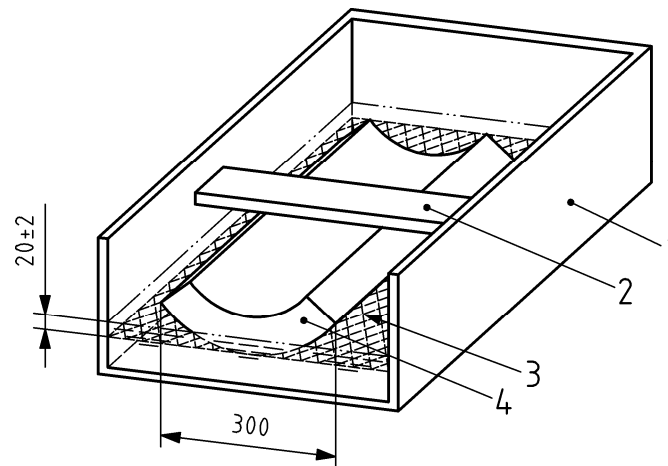
5.2 Water tank with a device for keeping the water level constant to within ± 2 mm, and a device to keep the test specimen in the required position during the test (see examples in Figures 1a) and 1b)).

The supporting device shall be such that the test specimen contact area with water shall be at least 85 % and such that the original form of the test specimen is maintained.

5.3 Tap water adjusted to a temperature of (23 ± 5) °C.

In case of dispute deionised water shall be used.

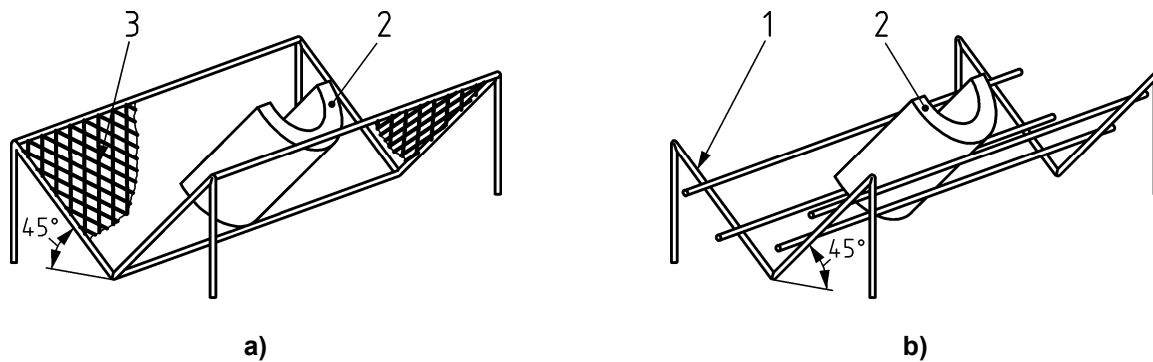
5.4 Equipment for drainage (see examples in Figures 2a) and 2b)).

a) Example for $D_0 \leq 300$ mmb) Example for $D_0 > 300$ mm**Key**

- 1 Water tank
- 2 Load to keep the test specimen in position
- 3 Stainless steel mesh
- 4 Test specimen

Figure 1 — Examples of partial immersion test devices

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**Key**

- 1 Stainless steel mesh
- 2 Test specimen
- 3 Perforated stainless steel

Figure 2 — Examples of equipment for drainage

6 Test specimens

6.1 Dimensions of test specimens

Test specimens shall be prepared from the product without reducing the original thickness. In the event that the outside diameter of the product is ≤ 300 mm the test specimen shall have one face with an area equal to the full cross sectional area of the product or half the original cross sectional area. For products with outside diameters > 300 mm the face shall be a segment of the cross section with an outside chord length of (300 ± 10) mm.

The length of the test specimen shall be adjusted so that the area of the immersed cylindrical surface will be $(40\,000 \pm 400)$ mm².

6.2 Preparation of test specimens

The test specimens shall be cut so that they do not include product ends.

The test specimens shall be prepared by methods that do not change the original structure of the product. Any skins, facings and/or coatings shall be retained.

NOTE Special methods of preparation, when needed, are specified in the relevant product standard.

For products with a thickness < 25 mm the ends shall be closed to avoid water pickup on the inner main surface of the test specimen (e.g. by use of glued aluminium foil on the ends).

6.3 Number of test specimens

The number of test specimens shall be as specified in the relevant product standard. If the number is not specified, then at least three test specimens shall be used.

NOTE In the absence of a product standard or any other European technical specification the number of test specimens may be agreed between parties.

6.4 Conditioning of test specimens

The test specimens shall be stored for at least 6 h at (23 ± 5) °C. In case of dispute they shall be stored at (23 ± 2) °C and (50 ± 5) % relative humidity for the time specified in the relevant product standard.