



SLOVENSKI STANDARD

SIST EN 495-5:2013

01-september-2013

Nadomešča:
SIST EN 495-5:2001

Hidroizolacijski trakovi - Ugotavljanje upogljivosti pri nizki temperaturi - 5. del: Polimerni in elastomerni trakovi za tesnjenje streh

Flexible sheets for waterproofing - Determination of foldability at low temperature - Part 5: Plastic and rubber sheets for roof waterproofing

Abdichtungsbahnen - Bestimmung des Verhaltens beim Falzen bei tiefen Temperaturen
- Teil 5: Kunststoff- und Elastomerbahnen für Dachabdichtungen

Feuilles souples d'étanchéité - Détermination de la pliabilité à basse température - Partie 5 : Feuilles d'étanchéité de toiture plastiques et élastomères

Ta slovenski standard je istoveten z: EN 495-5:2013

ICS:

91.060.20	Strehe	Roofs
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

SIST EN 495-5:2013 en,fr,de

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EUROPEAN STANDARD

EN 495-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2013

ICS 91.100.50

Supersedes EN 495-5:2000

English Version

Flexible sheets for waterproofing - Determination of foldability at low temperature - Part 5: Plastic and rubber sheets for roof waterproofing

Feuilles souples d'étanchéité - Détermination de la pliabilité à basse température - Partie 5 : Feuilles d'étanchéité de toiture plastiques et élastomères

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This European Standard was approved by CEN on 28 March 2013.

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 CEN-CENELEC Management Centre or to any CEN member.

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

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 495-5:2013) has been prepared by Technical Committee CEN/TC 254 "Flexible sheets for waterproofing", the secretariat of which is held by NEN.

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 November 2013, and conflicting national standards shall be withdrawn at the latest by November 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 495-5:2000.

This document has been technically and editorially revised in order to:

- add the possibility of instrumented apparatus;
- add precision data of a Round Robin test.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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

EN 495-5:2013 (E)**Introduction**

This European Standard is intended for characterisation of plastic and rubber sheets as manufactured or supplied before use. This test method relates to products or to their components where appropriate, and not to waterproofing membrane systems composed of such products and installed in the works.

This test is intended to be used in conjunction with European Standards for plastic and rubber sheets for waterproofing.

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1 Scope

This European Standard specifies a method for the determination of the behaviour of plastic and rubber sheets for waterproofing to folding after exposure at a low temperature.

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 13416, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Rules for sampling*

EN 1849-2, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 2: Plastic and rubber sheets*

3 Terms and definitions

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

3.1

top surface

upper side of the sheet, as used in situ

Note 1 to entry: It is usually the inside of the roll.

3.2

bottom surface

lower side of the sheet, as used in situ

Note 1 to entry: It is usually the outside of the roll.

3.3

overall thickness

thickness of the sheet excluding any surface profile

Note 1 to entry: See EN 1849-2.

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EN 495-5:2013 (E)**4 Principle**

The principle of the test is to place the looped test specimen in an adequate folding apparatus. Expose the looped test specimen to a specified low temperature for 1 h. Close the folding apparatus within 1 s and maintain this position for minimum 1 s. Allow the test specimen to warm to room temperature and examine the folded area under 6 x magnification.

5 Apparatus

The testing equipment consists of parts indicated in 5.1 to 5.3.

5.1 Folding apparatus

Metal folding apparatus or instrumented apparatus with adjustable parallel plates. (See Figure 1 for examples of such apparatuses.)

5.2 Conditioning room

Cold chamber with air circulation, adjustable at temperatures down to -45 °C with an accuracy of $\pm 2\text{ °C}$.

5.3 Inspection tool

Magnifying glass with six times magnification.

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6 Sampling

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Samples shall be taken in accordance with EN 13416.

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7 Preparation of test specimens

Take four test specimens of 100 mm x 50 mm, two in the longitudinal (L) direction and two in the transversal (T) direction of the sheet for each temperature interval.

NOTE For testing after artificial ageing, it is possible to reduce the amount of tested material. In this case, take two test specimens of 50 mm x 25 mm in one direction of the sheet for each temperature interval.

8 Procedure**8.1 Temperature**

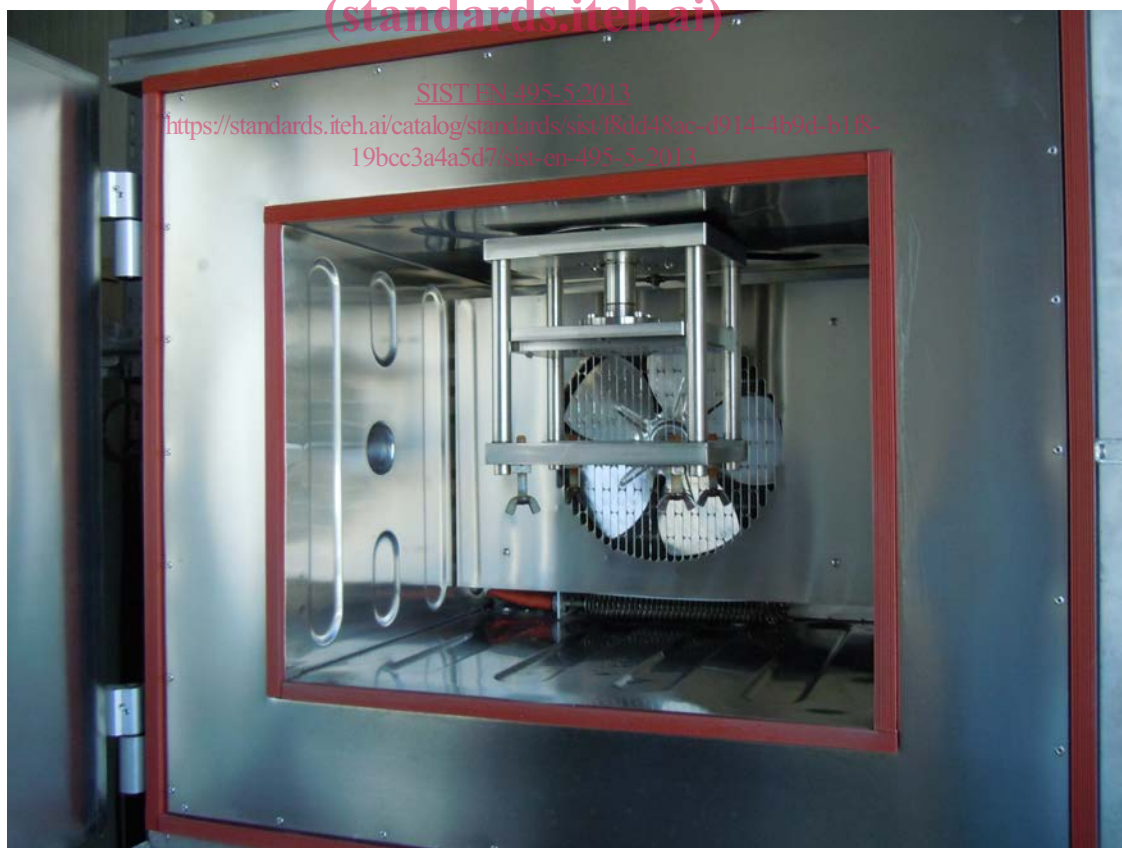
All operations of this procedure outside the cold chamber shall be performed at a temperature of $(23 \pm 5)\text{ °C}$.

8.2 Thickness

Measure the overall thickness of each test specimen according to EN 1849-2. If the effective thickness is within the declared tolerance, the declared thickness of the product or the measured thickness of the specimen can be used to adjust the plates.



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Figure 1 - Example of folding apparatus