SLOVENSKI STANDARD
SIST EN 12316-2:2013

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Nadomešča:
SIST EN 12316-2:2001

Hidroizolacijski trakovi - Ugotavljanje odpornosti proti razslojevanju spojev - 2. del: Polimerni in elastomerni trakovi za tesnjenje streh

Flexible sheets for waterproofing - Determination of peel resistance of joints - Part 2: Plastic and rubber sheets for roof waterproofing

Abdichtungsbahnen - Bestimmung des Schälwiderstandes der Fügenähte - Teil 2: Kunststoff- und Elastomerbahnen für Dachabdichtungen

Feuilles souples d'étanchéité - Détermination de la résistance au pelage des joints - Partie 2 : Feuilles d'étanchéité de toiture plastiques et élastomères

Ta slovenski standard je istoveten z: **EN 12316-2:2013**

ICS:

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

SIST EN 12316-2:2013 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 91.100.50

Supersedes EN 12316-2:2000

English Version

Flexible sheets for waterproofing - Determination of peel resistance of joints - Part 2: Plastic and rubber sheets for roof waterproofing

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

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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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 12316-2:2013) 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of an identical text or by endorsement, at the latest by December 2013, and conflicting national standards shall be withdrawn at the latest by December 2013.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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document supersedes EN 12316-2:2000.

This document has been technically and editorially revised to include the following:

— introduction of failure modes and how to handle results with different modes;

— estimation of precision.

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.

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.

1 Scope

This European Standard specifies a method for determining the resistance to peeling of joints between two adjacent sheets of the same plastic or rubber sheets for waterproofing.

This test method will be used mainly for testing the joints in mechanically fastened plastic or rubber sheets for waterproofing.

The peel strength characterises the optimum joint strength which can be reached for a membrane and a joint technique under laboratory conditions. On roofs the joint strength could be clearly reduced due to the non-optimal conditions (e.g. pressure, temperature, humidity, pollution, workmanship). The requirement for the joint technique at the site is to ensure a permanently tight joint.

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 ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system (ISO 7500-1)*

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

3 Terms and definitions

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

3.1
peel resistance
tensile force required to completely separate a prepared joint test specimen by peeling

4 Principle

The principle of the test is to pull a test specimen to peel a joint at a constant speed until it breaks. The tensile force is continuously recorded throughout the test.

5 Apparatus

Tensile testing machine equipped with a continuous recording of force and corresponding extension and capable of maintaining uniform speed of grip separation as specified below.

Tensile testing machine shall have a sufficient loading capacity and a grip separation speed of (100 ± 10) mm/min. The width of grips shall not be less than 50 mm.

The tensile testing machine shall be equipped with grips of a type which maintain or increase the clamping pressure as a function of the increase of the force applied to the test specimen. The test specimen shall be held so that it does not slip in the grips more than 2 mm.

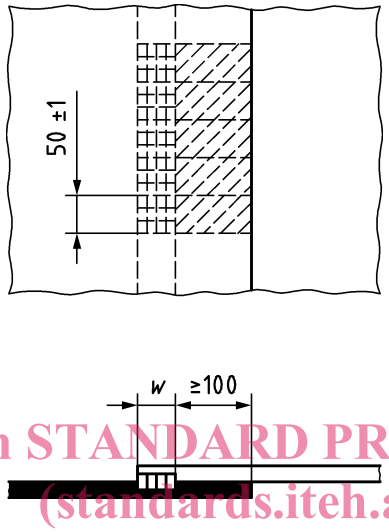
The method of gripping shall not induce premature rupture close to the grips.

The force measuring system shall meet at least Class 2 of EN ISO 7500-1 (i.e. ± 2%).

6 Sampling

Samples shall be taken in accordance with EN 13416.

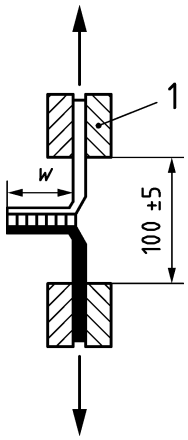
Dimensions in millimetres



Key
w width of joint

Figure 1 - Preparation of specimen from specially made side and end laps

Dimensions in millimetres



Key
1 grip
w width of joint

Figure 2 - Peel strength testing of side and end laps

7 Preparation of test pieces and test specimens

Test pieces of the sheet are joined by the method(s) to be used for installation as recommended by the manufacturer. After jointing, the test piece shall be conditioned for a minimum of 16 h at (23 ± 2) °C before testing unless the manufacturer recommends differently.

From each of these joint test pieces, five rectangular test specimens (50 ± 1) mm wide shall be cut, perpendicular to the joint (see Figure 1). They shall have such a length, that the ends of the specimen fill the grips and that the complete overlap can be tested perpendicular to joint (see Figure 2).

Rectangular joint test specimens shall be prepared representing all possibilities of jointing according to the way(s) to be used for installation.

The number of specimens tested is five per set.

8 Procedure

The test specimen shall be firmly held in the grips of the tensile testing machine, taking care that the longitudinal axis of the test specimen, the axis of the tensile testing machine and the grips are correctly aligned.

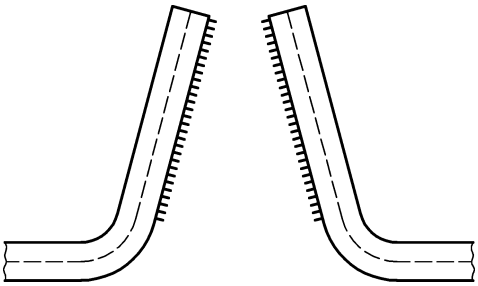
The clear distance between the grips shall be (100 ± 5) mm (see Figure 2). No preload will be applied.

The test is carried out on a test specimen at a temperature of (23 ± 2) °C and at a constant separating speed for the grips of (100 ± 10) mm/min.

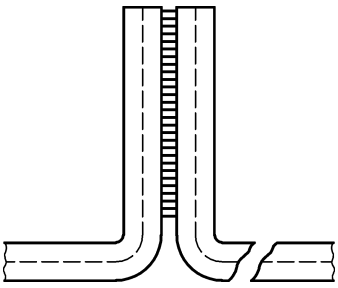
The applied force and extension shall be recorded continuously until the test specimen separates.

The mode of failure of the joint shall be recorded.

The modes of failure are classified in three classes A, B, C or combinations of them (see Figure 3).



A - Peeling of the joint



B - Break outside of the joint