
**Hidroizolacijski trakovi - Določevanje odpornosti proti nadaljnjemu trganju - 2. del:
Polimerni in elastomerni trakovi za tesnjenje streh**

Flexible sheets for waterproofing - Determination of resistance to tearing - Part 2: Plastic and rubber sheets for roof waterproofing

Abdichtungsbahnen - Bestimmung des Widerstandes gegen Weiterreißen - Teil 2:
Kunststoff- und Elastomerbahnen für Dachabdichtungen

Feuilles souples d'étanchéité - Détermination de la résistance à la déchirure - Partie 2 :
Feuilles d'étanchéité de toiture plastiques et élastomères

Ta slovenski standard je istoveten z: prEN 12310-2

ICS:

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

oSIST prEN 12310-2:2017**en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 12310-2

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ICS 91.100.50

Will supersede EN 12310-2:2000

English Version

**Flexible sheets for waterproofing - Determination of
resistance to tearing - Part 2: Plastic and rubber sheets for
roof waterproofing**

Feuilles souples d'étanchéité - Détermination de la
résistance à la déchirure (au clou) - Partie 2 : Feuilles
d'étanchéité de toiture plastiques et élastomères

Abdichtungsbahnen - Bestimmung des Widerstandes
gegen Weiterreißen - Teil 2: Kunststoff- und
Elastomerbahnen für Dachabdichtungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 254.

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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European foreword

This document (prEN 12310-2:2017) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12310-2:2000.

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Introduction

This European Standard is intended for characterisation of plastic and rubber sheets as manufactured or supplied before use. This test method relates exclusively 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 Standard "Definitions and Characteristics" for plastic and rubber sheets for roof waterproofing.

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1 Scope

This European Standard specifies a method for the determination of tear properties of plastic and rubber sheets for roof waterproofing using a trapezoidal test specimen with a nick or cut.

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 7500-1:2015, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system (ISO 7500-1:2015)*

EN 13416:2001 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Rules for sampling*

3 Term and definition

For the purpose of this document, the following term and definition applies.

3.1

resistance to tearing

maximum tensile force required to tear a pre-cut test specimen

4 Principle

The principle of the test is measurement of the force required to completely tear the test specimen, in continuation of the cut or nick already produced in the test specimen.

The tearing force is applied by means of a tensile testing machine at a constant speed until the test specimen breaks. The maximum peak force achieved is reported.

5 Apparatus

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

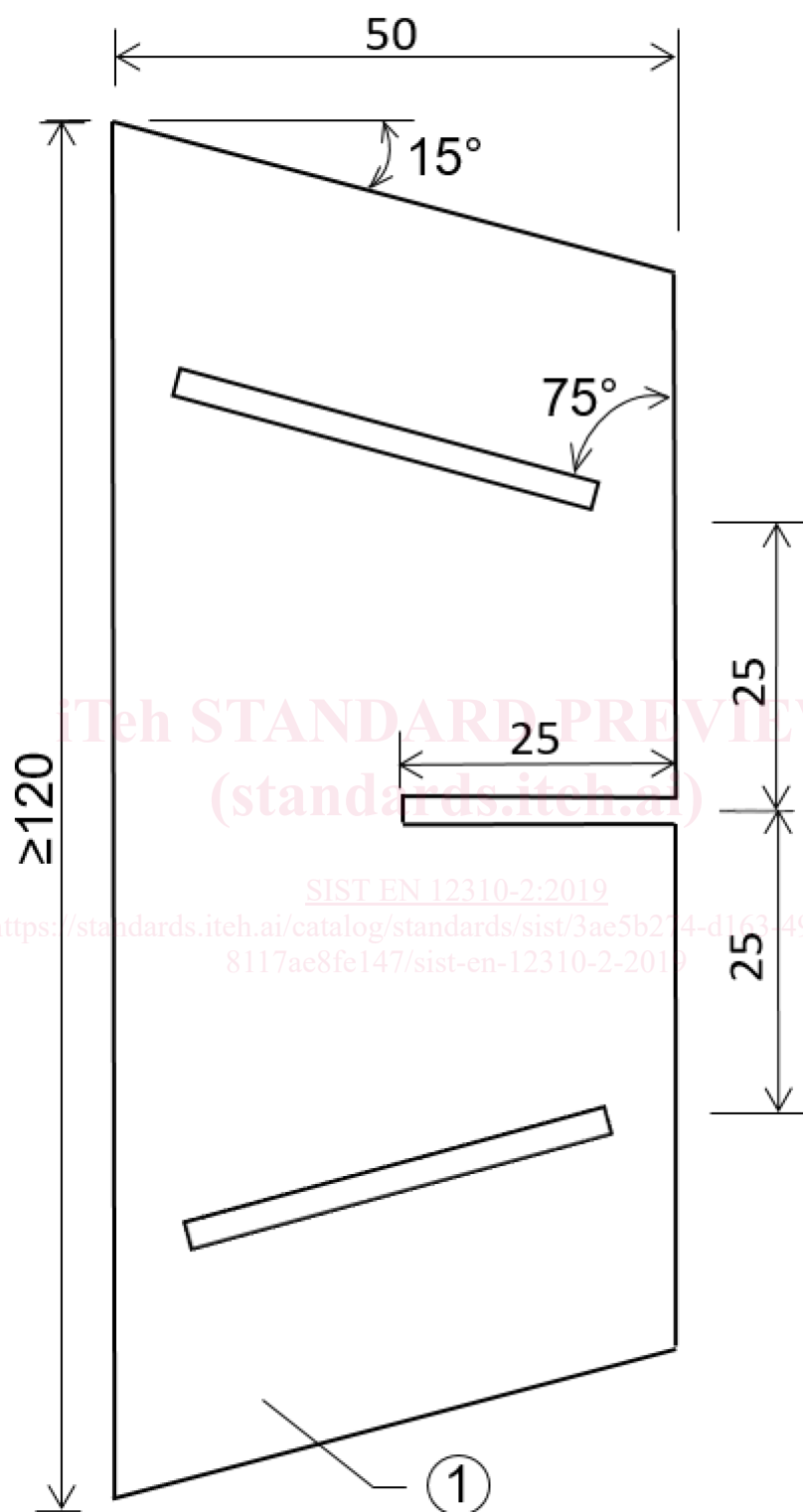
The tensile testing machine shall have a sufficient loading capacity of at least 2 000 N and a grip separation speed of (100 ± 10) mm per min. The width of grips shall not be less than 50 mm.

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 1 mm for products up to and including 3 mm thick, and 2 mm for thicker products. A mark or tape on the test specimen where it enters the grips will help reveal any slip.

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

The template used for cutting the test specimens shall have dimensions as shown in Figure 1.

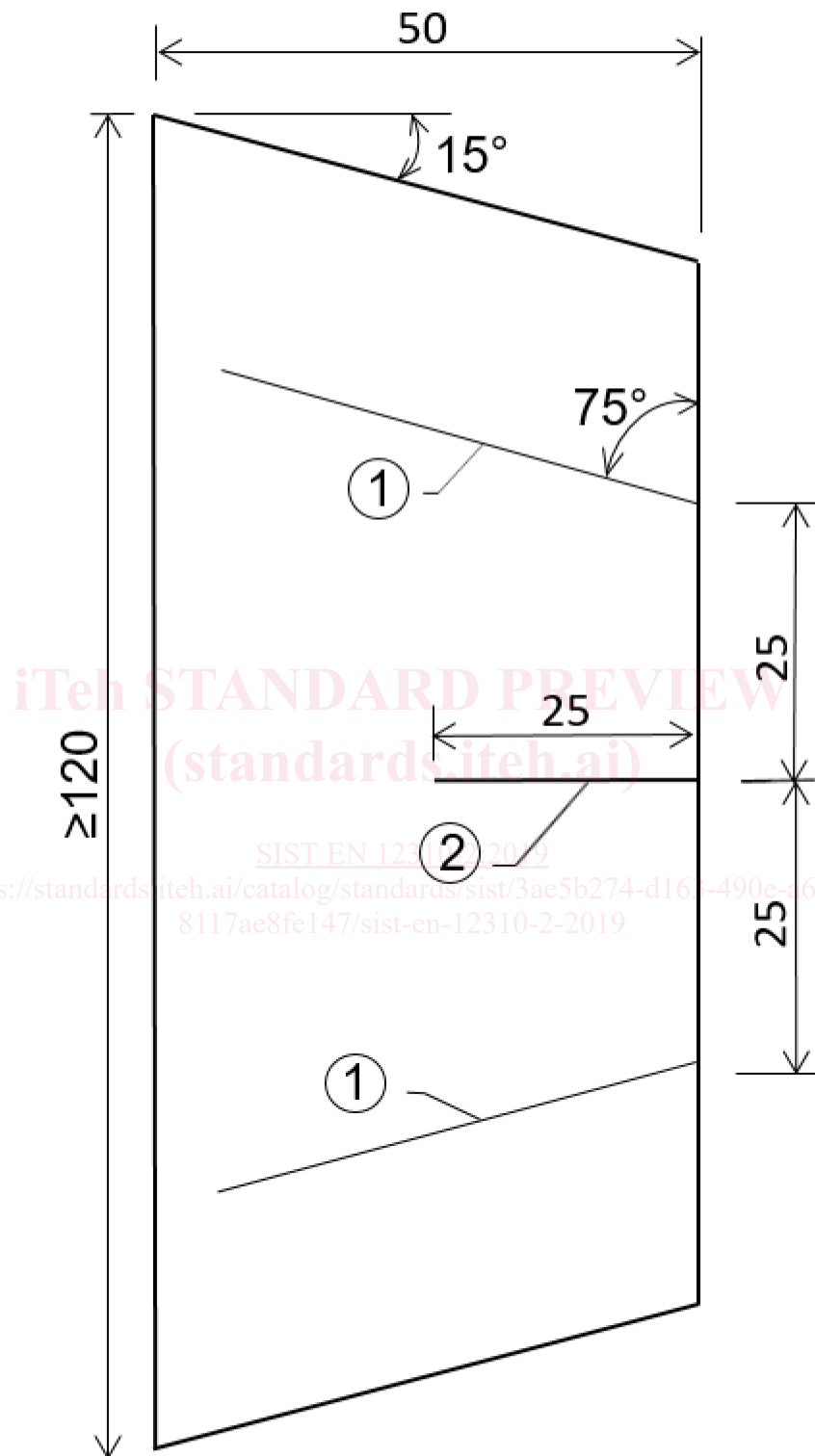
Dimensions in millimetres

**Key**

1 template thickness: 2 mm to 3 mm

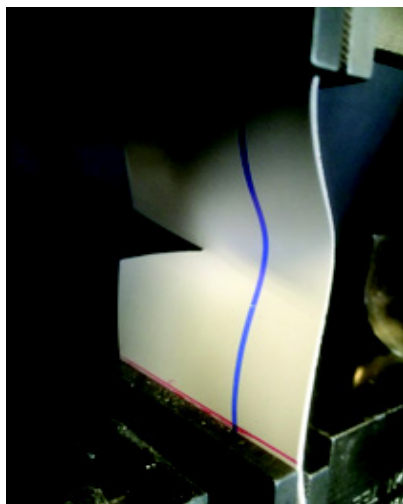
Figure 1 — Template for cutting the test specimen

Dimensions in millimetres

**Key**

- 1 line for grip
- 2 nick or cut

Figure 2 — Shape and dimension of the test specimen



Note The thick line parallel to the long edge of the specimen is marking the longitudinal (machine) direction of the membrane, the thin lines are to align the specimen to the grip.

Figure 3 — Test specimen mounted in the grips for testing in transversal direction

6 Sampling

Samples shall be taken in accordance with EN 13416:2001.

7 Preparation of test specimens

The shape and dimensions of the test specimens are given in Figure 2.

The angle α shall be produced with an accuracy of 1° .

Specimens as shown in Figure 1 shall be cut from the product to be tested. Using the template cut five specimen for each (longitudinal and transversal direction). They are taken parallel and transverse to the manufacturing direction (machine direction) of the film or sheeting so as to permit determination of the tear resistance in both directions as defined by the direction of the incision.

Mark on every test specimen the lines indicating the position of the grips.

Condition the test specimens, prior to testing, for at least 20 h in a standard atmosphere of $(23 \pm 2)^\circ\text{C}$ and $(50 \pm 5)\%$ relative humidity.

8 Procedure

The test specimen shall be tightly clamped in the tensile testing machine grips (Clause 5) taking care that the lines (thin lines in the Figure 3) are aligned with the front edge of the grips.

The test is carried out on a test specimen at a temperature of $(23 \pm 2)^\circ\text{C}$ and at a constant separating speed for the grips of $(100 \pm 10)\text{ mm/min}$.

The maximum applied tensile force shall be recorded for each test specimen.