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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12310-2:2018 sisaldab Euroopa standardi EN 12310-2:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 12310-2:2018 consists of the English text of the European standard EN 12310-2:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 12.12.2018.	Date of Availability of the European standard is 12.12.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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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 - Partie 2 : Feuilles
d'étanchéité de toiture plastiques et élastomères

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

This European Standard was approved by CEN on 26 October 2018.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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European foreword

This document (EN 12310-2:2018) 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 June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

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

This document supersedes EN 12310-2:2000.

This edition contains the following technical changes in regards to EN 12310-2:2000:

- Figures 1 and 2 have been changed, the value ≥ 120 has been included and replaces the fix length 130mm;
- Figure 3 has been replaced by a photograph showing two reference lines;
- the normative references where updated.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document 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 EN 13956, Flexible sheet for waterproofing — Plastic and rubber sheets for waterproofing — Definitions and Characteristics.

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1 Scope

This document 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 are referred to in the text in such a way that some or all of their content constitutes requirements 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 ISO 7500-1:2018, *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 7500-1:2018)*

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

3 Term and definition

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

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.