

**Painduvad hüdroisolatsioonimaterjalid. Aluskatete
määramised ja omadused. Osa 1: Tükkmaterjalidest
katuste aluskatted**

-
- 1:

EVS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

E E EVS-EN 13859-1:2010 EN 13859-1:2010 S 30 09 2010 EVS E 23 0 2010 S	E E E EVS-EN 13859-1:2010 EN 13859-1:2010 E 30 09 2010 S E 23 0 2010 E
---	---

ICS 91 100 50

EVS

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele									
	E	S							
10	1031	E		:	05 5050	E-	:	E	S
Right to reproduce and distribute belongs to the Estonian Centre for Standardisation									
N			E		S				
10	1031	E		:	05 5050	E-	:	E	S

English Version

Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing

Feuilles souples d'étanchéité - Définitions et
caractéristiques des écrans souples de sous toiture - Partie
1: Ecrans souples de sous toiture pour couverture en petits
éléments discontinus

Abdichtungsbahnen - Definitionen und Eigenschaften von
Unterdeck- und Unterspannbahnen - Teil 1: Unterdeck- und
Unterspannbahnen für Dachdeckungen

This European Standard was approved by CEN on 6 May 2010.

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 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 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Product characteristics	7
4.1 General.....	7
4.2 Dimensions, straightness and mass per unit area.....	7
4.3 Application related characteristics	7
4.3.1 Reaction to fire.....	7
4.3.2 Resistance to water penetration	7
4.3.3 Water vapour transmission properties.....	8
4.3.4 Tensile properties	8
4.3.5 Resistance to tearing	8
4.3.6 Dimensional stability	8
4.3.7 Flexibility at low temperature (pliability)	8
4.3.8 Artificial ageing behaviour.....	8
4.3.9 Resistance to penetration of air	8
4.3.10 Watertightness of seams	8
4.4 Dangerous substances	9
5 Testing	9
5.1 Sampling	9
5.2 Test methods.....	9
5.2.1 Determination of dimensions, straightness and mass per unit area	9
5.2.2 Determination of reaction to fire	9
5.2.3 Determination of resistance to water penetration Class <i>W1</i>	9
5.2.4 Determination of resistance to water penetration Class <i>W2</i>	10
5.2.5 Determination of water vapour transmission properties	10
5.2.6 Determination of tensile properties	10
5.2.7 Determination of resistance to tearing (nail shank).....	10
5.2.8 Determination of dimensional stability.....	10
5.2.9 Determination of flexibility at low temperature (pliability)	10
5.2.10 Determination of resistance to artificial ageing	10
5.2.11 Determination of resistance to penetration of air	10
5.2.12 Watertightness of seams	11
6 Evaluation of conformity.....	11
6.1 General.....	11
6.2 Initial type testing	11
6.2.1 General.....	11
6.2.2 Sampling	11
6.2.3 Test results.....	11
6.3 Factory production control (FPC)	11
6.3.1 General.....	11
6.3.2 Frequency of testing	12
7 Product data sheet and designation.....	12
8 Marking, labelling and packaging	12
Annex A (normative) Determination of tensile properties	13
A.1 General.....	13

A.2	Apparatus	13
A.3	Sampling.....	13
A.4	Preparation of test specimens	13
A.5	Procedure	13
A.6	Expression and evaluation of results.....	14
A.7	Test report.....	15
Annex B	(normative) Determination of resistance to tearing.....	16
B.1	General	16
B.2	Apparatus	16
B.3	Sampling.....	16
B.4	Preparation of test specimens	16
B.5	Procedure	16
B.6	Expression and evaluation of results.....	17
B.7	Test report.....	17
Annex C	(normative) Artificial ageing by exposure to UV and heat.....	18
C.1	General	18
C.2	Principle.....	18
C.3	Apparatus	18
C.3.1	Apparatus for exposure to UV-A irradiation and elevated temperature	18
C.3.2	Apparatus for exposure to heat	18
C.4	Preparation of test specimens	18
C.4.1	Dimensions of test specimens.....	18
C.4.2	Number of specimens	18
C.4.3	Conditioning of test specimens	19
C.5	Procedure	19
C.5.1	Exposure to UV irradiation and elevated temperature	19
C.5.2	Exposure to heat	19
C.5.3	Testing of resistance to water penetration and tensile properties after artificial ageing	19
C.6	Expression of results	19
C.7	Test report.....	19
Annex D	(normative) Initial type test and frequencies of testing for factory production control	21
Annex E	(informative) Example of a product data sheet	22
E.1	General information	22
Annex F	(normative) Determination of the watertightness of seams.....	24
F.1	General	24
F.2	Definitions	24
F.2.1	Watertightness of seams	24
F.3	Procedure	24
F.4	Apparatus	24
F.4.1	General	24
F.4.2	Sealing gaskets	24
F.5	Preparation of the test specimens.....	24
F.6	Procedure	25
F.7	Evaluation.....	25
F.8	Test report.....	25
Annex ZA	(informative) Clauses of this European Standard addressing provision of the Construction Products Directive (CPD)	26
ZA.1	Scope and relevant characteristics	26
ZA.2	Procedures for attestation of conformity of underlays for discontinuous roofing	27
ZA.2.1	Systems of attestation of conformity	27
ZA.2.2	EC Declaration of conformity	30
ZA.3	CE marking and labelling.....	31
	Bibliography.....	34

Foreword

This document (EN 13859-1:2010) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by BSI.

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 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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 13859-1:2005+A1:2008.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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

EVS

1 Scope

This European standard specifies the characteristics of flexible sheets for underlays which are to be used under roof covering of discontinuous roofs. It specifies the requirements and test methods and provides for the evaluation of conformity of the products with the requirements of this document.

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 1107-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for roof waterproofing — Determination of dimensional stability*

EN 1107-2, *Flexible sheets for waterproofing — Determination of dimensional stability — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 1109, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flexibility at low temperature*

EN 1296, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roofing — Method of artificial ageing by long term exposure to elevated temperature*

EN 1297, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Method of artificial ageing by long term exposure to the combination of UV radiation, elevated temperature and water*

EN 1848-1, *Flexible sheets for waterproofing — Determination of length, width and straightness — Part 1: Bitumen sheets for roof waterproofing*

EN 1848-2, *Flexible sheets for waterproofing — Determination of length, width, straightness and flatness — Part 2: Plastic and rubber sheets for roof waterproofing*

EN 1849-1, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 1: Bitumen sheets for roof waterproofing*

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

EN 1928:2000, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*

EN 1931, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of water vapour transmission properties*

EN 12310-1:1999, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for waterproofing — Determination of resistance to tearing (nail shank)*

EN 12311-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for roof waterproofing — Determination of tensile properties*

EN 13111, *Flexible sheets for waterproofing — Underlays for discontinuous roofing and walls — Determination of resistance to water penetration*

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

EN 13501-1:2007, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13859-2:2010, *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Part 2: Underlays for walls*

EN ISO 11925-2, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2002)*

EN ISO 12572, *Hygrothermal performance of building materials and products — Determination of water vapour transmission properties (ISO 12572:2001)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13416:2001 and the following apply.

3.1 waterproofing

action to prevent the passage of water from one plane to another

3.2 underlays for discontinuous roofing

factory-made flexible sheets of plastics, bitumen, rubber or other suitable materials, which are used as underlay to coverings of sloping roofs (e.g. tiles, slates)

3.3 manufacturer's limiting value MLV

value stated by the manufacturer to be met during testing, that can be a minimum or a maximum value according to statements made under product characteristics of this document

3.4 manufacturer's declared value MDV

value declared by the manufacturer accompanied by a declared tolerance

3.5 sampling

procedure used to select or constitute a sample

3.6 sample

sheet from which a test piece is taken

3.7 test piece

part of the sample from which test specimens are taken

3.8 test specimen

piece of precise dimensions taken from the test piece

EVS