

PAINDUVAD HÜDROISOLATSIOONIMATERJALID.
ARMEERITUD BITUUMENMATERJALID KATUSE
HÜDROISOLATSIOONIKS. MÄÄRATLUSED JA OMADUSED

Flexible sheets for waterproofing - Reinforced bitumen
sheets for roof waterproofing - Definitions and
characteristics

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13707:2013 sisaldab Euroopa standardi EN 13707:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 13707:2013 consists of the English text of the European standard EN 13707:2013.
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 02.10.2013.	Date of Availability of the European standard is 02.10.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 01.040.91, 91.100.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Flexible sheets for waterproofing - Reinforced bitumen sheets
for roof waterproofing - Definitions and characteristics

Feuilles souples d'étanchéité - Feuilles bitumineuses
armées pour l'étanchéité de toiture - Définitions et
caractéristiques

Abdichtungsbahnen - Bitumenbahnen mit Trägereinlage für
Dachabdichtungen - Definitionen und Eigenschaften

This European Standard was approved by CEN on 12 November 2012.

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.



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

CEN-CENELEC 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 System-related characteristics.....	8
5 Product characteristics	8
5.1 General.....	8
5.2 Characteristics	8
5.2.1 Visible defects	8
5.2.2 Dimensions, tolerances and mass per unit area	8
5.2.3 Watertightness	8
5.2.4 Effects of water	8
5.2.5 Fire performance.....	9
5.2.6 Resistance to hail	9
5.2.7 Watertightness after stretching at low temperature	9
5.2.8 Joint strength	10
5.2.9 Water vapour properties	10
5.2.10 Tensile properties	10
5.2.11 Resistance to impact	10
5.2.12 Resistance to static loading	10
5.2.13 Resistance to tearing (nail shank)	10
5.2.14 Resistance to root penetration.....	10
5.2.15 Dimensional stability	10
5.2.16 Form stability under cyclic temperature change.....	10
5.2.17 Flexibility at low temperature (pliability)	11
5.2.18 Flow resistance at elevated temperature	11
5.2.19 Artificial ageing behaviour.....	11
5.2.20 Adhesion of granules	12
5.3 Dangerous substances	12
6 Evaluation of conformity.....	12
6.1 General.....	12
6.2 Initial Type Testing – Type Testing	12
6.2.1 General.....	12
6.2.2 Test reports	13
6.3 Factory production control (FPC)	13
6.3.1 General.....	13
6.3.2 Requirements	14
6.3.3 Product specific requirements	15
6.3.4 Initial inspection of factory and of FPC	16
6.3.5 Continuous surveillance of FPC	17
6.3.6 Procedure for modifications	17
7 Product data sheet.....	17
8 Marking, labelling and packaging	18
Annex A (normative) Applicability of characteristics.....	19
Annex B (normative) Frequencies of testing for factory production control	20
Annex C (informative) Information about chemical resistance	21
Annex D (informative) Example of a product data sheet — General information	23

Annex E (informative) Wind-uplift properties of mechanically fixed bituminous membranes —	
General information	25
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or	
other provisions of EU Directives.....	26
ZA.1 Scope and relevant characteristics	26
ZA.2 Procedure for attestation of conformity of the bitumen sheets	28
ZA.2.1 Systems of attestation of conformity	28
ZA.2.2 EC Certificate and Declaration of conformity.....	34
ZA.3 CE marking and labelling.....	36
Bibliography.....	39

Foreword

This document (EN 13707:2013) 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 April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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 13707:2004+A2:2009.

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 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.

1 Scope

This European Standard specifies definitions and characteristics for flexible reinforced bitumen sheets for which the intended use is roofing. This covers sheets used as top layers, intermediate layers and underlayers. It does not cover reinforced bitumen sheets for waterproofing used as underlays for discontinuous roofing.

This European Standard does not cover waterproofing sheets which are intended to be used fully bonded under bituminous products (e.g. asphalt) directly applied at high temperature, specified by EN 14695.

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

EN 1108, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of form stability under cyclical temperature changes*

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

EN 1110, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flow resistance at elevated 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 1849-1, *Flexible sheets for waterproofing — Determination of thickness and mass per unit area — Part 1: Bitumen sheets for roof waterproofing*

EN 1850-1, *Flexible sheets for waterproofing — Determination of visible defects — Part 1: Bitumen sheets for roof waterproofing*

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

EN 12039, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of adhesion of granules*

EN 12310-1, *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 12316-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for roof waterproofing — Determination of peel resistance of joints*

EN 12317-1, *Flexible sheets for waterproofing — Part 1: Bitumen sheets for roof waterproofing — Determination of shear resistance of joints*

EN 12691:2006, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to impact*

EN 12730:2001, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to static loading*

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

EN 13501-1:2007+A1:2009, *Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire tests*

EN 13501-5, *Fire classification of construction products and building elements — Part 5: Classification using data from external fire exposure to roofs tests*

EN 13897, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness after stretching at low temperature*

EN 13948, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to root penetration*

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

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 waterproofing system

assembly of one or more layers of roofing sheet in its applied and jointed form, which has certain performance characteristics, to be assessed as a whole

Note 1 to entry: Where only one layer is used this is usually referred to as a single layer system.

Note 2 to entry: A bituminous roofing system is formed on site by connecting and sealing one or more superimposed layers of bitumen sheets to form a single composite waterproof layer for use over flat, pitched or vertical surfaces according to building application requirements.

3.3 roofing

waterproofing used in the roof of a building including roofs used for parking of vehicles and for roof gardens

Note 1 to entry: Waterproofing sheets which are intended to be fully bonded and bituminous products directly applied at high temperature are specified by the European Standard on flexible reinforced bitumen sheets for concrete bridge decks and other concrete surfaces trafficable by vehicles (see EN 14695 [8]).

3.4 roofing sheet

factory made flexible sheet including any carriers, facings, surface texture and/or backing