

SVENSK STANDARD

SS-EN 14695:2010

Fastställt/Approved: 2010-02-01

Publicerad/Published: 2010-04-27

Utgåva/Edition: 1

Språk/Language: engelska/English

ICS: 91.100.50

Flexibla tätskikt – Bitumenmattor med stomme för isolering av betongbroar och andra trafikerade betongytor – Definitioner och karaktäriserande egenskaper

Flexible sheets for waterproofing – Reinforced bitumen sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete – Definitions and characteristics

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14695

January 2010

ICS 91.100.50

English Version

**Flexible sheets for waterproofing - Reinforced bitumen sheets
for waterproofing of concrete bridge decks and other trafficked
areas of concrete - Definitions and characteristics**

Feuilles souples d'étanchéité - Feuilles bitumineuses
armées pour l'étanchéité de ponts et autres surfaces en
béton circulables par les véhicules - Définitions et
caractéristiques

Abdichtungsbahnen - Bitumenbahnen mit Trägereinlage für
Abdichtungen von Betonbrücken und andere
Verkehrsflächen aus Beton - Definitionen und
Eigenschaften

This European Standard was approved by CEN on 21 November 2009.

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Foreword

This document (EN 14695:2010) 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of an identical text or by endorsement, at the latest by July 2010, and conflicting national standards shall be withdrawn at the latest by October 2011.

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

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1 Scope

This European Standard specifies characteristics and performance of reinforced bitumen sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete where the waterproofing system is bonded to the concrete deck and overlaid by asphalt. The standard also specifies the test methods used for verifying the characteristics and performance.

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 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 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 12039:1999, *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of adhesion of granules*

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

EN 13375:2004, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Specimen preparation*

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

EN 13596, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of bond strength*

EN 13653, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of shear strength*

EN 14223, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of water absorption*

EN 14224, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of crack bridging ability*

EN 14691, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Compatibility by heat conditioning*

EN 14692:2005, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of the resistance to compaction of an asphalt layer*

EN 14693, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of the behaviour of bitumen sheets during application of mastic asphalt*

EN 14694, *Flexible sheets for waterproofing — Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Determination of resistance to dynamic water pressure after damage by pre-treatment*

EN ISO 9001, *Quality management systems — Requirements (ISO 9001:2008)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13375:2004, EN 13416:2001 and the following apply.

3.1

waterproofing

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

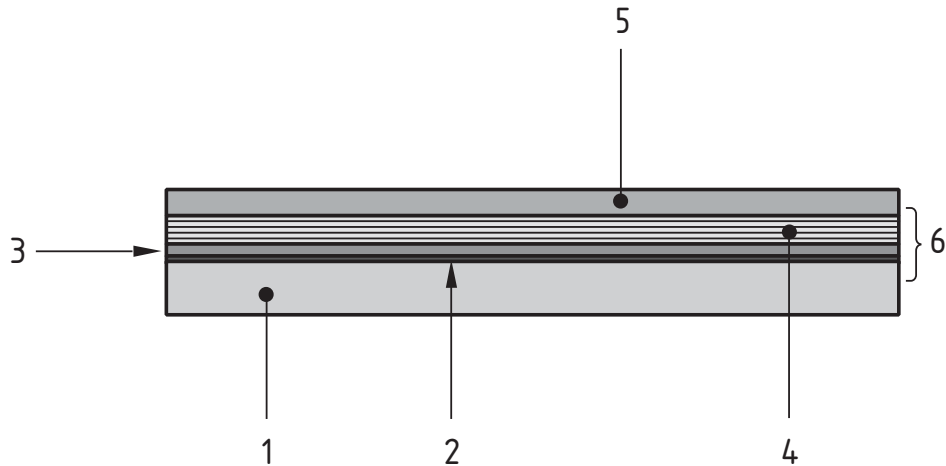
3.2

bridge waterproofing system

assembly of layers between a concrete bridge deck (or other trafficked areas of concrete) and an overlay

NOTE 1 See Figure 1.

NOTE 2 Generally comprises a primer, the reinforced bitumen sheet (or the assembly of several reinforced bitumen sheets) and the protection layer if specified by the manufacturer.



Key

- 1 concrete bridge deck
- 2 primer
- 3 reinforced bitumen sheet(s)
- 4 protection layer
- 5 overlay
- 6 bridge waterproofing system (2 + 3 and 4 if specified)

Figure 1 — Schematic section of bridge waterproofing system

**3.3
carrier**

material incorporated into or onto a factory-made reinforced bitumen sheet to ensure its stability and/or mechanical resistance

**3.4
backing**

material incorporated onto a factory-made reinforced bitumen sheet without a permanent mechanical function

**3.5
surfacing**

material applied on one or both sides of reinforced bitumen sheets, either as a permanent light surface protection on the upper surface or as an anti-sticking substance of the reinforced bitumen sheets

**3.6
batch**

amount of product manufactured to the same specification within a maximum period of 24 h

**3.7
manufacturer's limiting value**

MLV
value stated by the manufacturer to be met during testing

NOTE The MLV can be a minimum or a maximum value according to statements made under product characteristics of this European Standard.