
Hidroizolacijski trakovi - Hidroizolacija betonskih premostitvenih objektov in drugih betonskih povoznih površin - Priprava preskušancev

Flexible sheets for waterproofing - Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles - Specimen preparation

Abdichtungsbahnen - Abdichtung für Betonbrücken und andere Verkehrsflächen aus Beton - Probenvorbereitung

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Feuilles souples d'étanchéité - Étanchéité des tabliers de ponts en béton et autres surfaces en béton circulables par les véhicules - Préparation des éprouvettes

<https://standards.iteh.ai/catalog/standards/sist/71627176-791b-4d52-8568-828a589e802/sist-en-13375-2019>

Ta slovenski standard je istoveten z: EN 13375:2019

ICS:

91.100.30	Beton in betonski izdelki	Concrete and concrete products
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials
93.080.20	Materiali za gradnjo cest	Road construction materials

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EUROPEAN STANDARD

EN 13375

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2019

ICS 91.100.50

Supersedes EN 13375:2004

English Version

Flexible sheets for waterproofing - Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles - Specimen preparation

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This European Standard was approved by CEN on 18 February 2019.

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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.

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

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European foreword

This document (EN 13375:2019) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.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 13375:2004.

EN 13375:2019 includes the following significant technical changes with respect to EN 13375:2004:

- Change of Foreword into European Foreword;
- Clause 2, Normative references has been updated with citation of Bituminous mixtures specifications EN13108-1, and -6 and -7; prEN17048 has been introduced;
- Clause 4, Table 1 has been updated with citation of EN numbers at each test method;
- Subclause 5.2 updated with the use of CEM I 52.5 N;
- Clause 6, Note 1 has been split into Note 1 and Note 2;
- Section 7.1.2, Mastic asphalt has been updated to EN13108-6 standard, and Grading (Figure 3) has been deleted;
- Section 7.1.3, now “Asphalt Concrete”, has been updated according to EN 13108-1 (previous title was “Coarse bituminous mixture”);
- Section 7.1.4 “Porous Asphalt” has been introduced as new section, according to EN13108-7.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this document: 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.

EN 13375:2019 (E)**Introduction**

The purpose of this document is to give rules for the preparation of specimens for performance related tests on waterproofing systems. This document also includes specifications for the base specimen concrete and for the bituminous mixes for the asphalt layer in contact with the waterproofing and used for the test.

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1 Scope

This document is one of a series of documents applicable to flexible sheets for waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles.

This document specifies:

- the composition, the characteristics and the preparation procedure of the base specimen concrete slabs;
- the composition, the characteristics and the preparation procedure of different bituminous mixtures for the asphalt layer;
- the rules for the preparation of specimens.

This document outlines the specimen preparation for tests on the waterproofing systems which are referred to in the different test standards.

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 1766:2017, *Products and systems for the protection and repair of concrete structures — Test methods — Reference concretes for testing*

EN 13036-1, *Road and airfield surface characteristics — Test methods — Part 1: Measurement of pavement surface macrotexture depth using a volumetric patch technique*

EN 13108-1, *Bituminous mixtures — Material specifications — Part 1: Asphalt Concrete*

EN 13108-6, *Bituminous mixtures — Material specifications — Part 6: Mastic Asphalt*

EN 13108-7, *Bituminous mixtures — Material specifications — Part 7: Porous Asphalt*

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

EN 14692, *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 waterproofing sheets during application of mastic asphalt*

EN 14695, *Flexible sheets for waterproofing — Reinforced bitumen sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete — Definitions and characteristics*

EN 17048,¹ *Flexible sheets for waterproofing — Plastic and rubber sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete — Definitions and characteristics*

¹ Under preparation. Stage at the time of publication: FprEN 17048:2017.

EN 13375:2019 (E)**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 14695, EN 17048² and the following 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**sample**

roll of a flexible sheet from which a test piece is taken

3.2**test piece**

part of the sample

3.3**base specimen**

prepared concrete slab

3.4**asphalt layer**

layer of a bituminous mixture according to Clause 7 which is used to carry out the tests listed in Table 1

3.5**specimen**

- Type 1: base specimen with primer if any, and the applied waterproofing sheet;
- Type 2: flexible sheet applied with the asphalt layer;
- Type 3: base specimen with applied waterproofing system and applied asphalt layer

3.6**test specimen**

piece with certain dimensions taken from the specimen

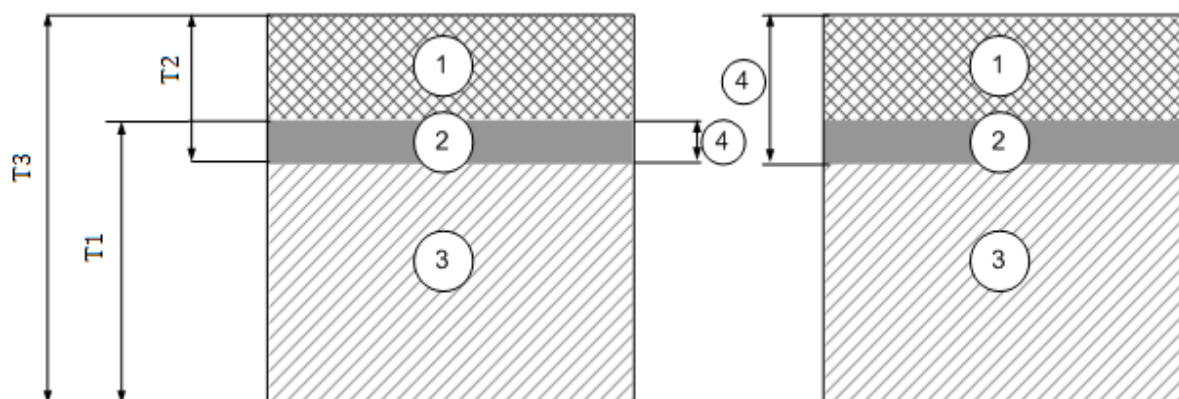
4 Specimens

Specimens for the different performance related tests are defined in the relevant standards dealing with the testing of flexible sheets.

If a waterproofing system defined by the producer does not include an asphalt layer as a protection layer, an asphalt layer, according to Clause 7, shall be laid onto the waterproofing system, Figure 1.a.

If a layer, e.g. mastic asphalt, is used as a protection layer in the waterproofing system, Figure 1.b, no asphalt layer shall be put onto the waterproofing system to fabricate the specimens.

² Under preparation. Stage at the time of publication: FprEN 17048:2017.



a) Waterproofing system does not include an asphalt layer as protection layer

b) Waterproofing system includes an asphalt layer as protection layer

Key

- 1 asphalt layer
- 2 waterproofing sheet(s)
- 3 base specimen
- 4 waterproofing system
- T1 type 1
- T2 type 2
- T3 type 3

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Figure 1 — Cross sections through specimens

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Specimens for the different performance related tests are defined in the relevant standards dealing with the testing of flexible sheets, see Table 1. <https://standards.iteh.ai/catalog/standards/sist/71e27171-790b-4d52-a368-828a589e802/sist-en-13375-2019>

Table 1 — Test methods standards

Test method	Type of specimen according to standard
determination of bond strength	EN 13596
determination of shear strength	EN 13653
determination of crack bridging ability	EN 14224
determination of the resistance to compaction of an asphalt layer	EN 14692
determination of the behaviour of polymer bitumen sheets during application of mastic asphalt	EN 14693

5 Base specimens

5.1 General

Concrete base specimen slabs shall be of uniform quality for all tests. The slab thickness shall not be less than 40 mm. The area of the base specimens shall be chosen in such a way that the required test specimens can be obtained from the specimens by a suitable method, see Clause 8.