

**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**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14694:2005 sisaldab Euroopa standardi EN 14694:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14694:2005 consists of the English text of the European standard EN 14694:2005.</p> <p>This document is endorsed on 15.07.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies a test method for the evaluation of the resistance to impact puncturing of a sheet or sheet system</p>	<p>Scope: This European Standard specifies a test method for the evaluation of the resistance to impact puncturing of a sheet or sheet system</p>
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ICS 91.100.50

Võtmesõnad: asphalt paving, asphalts, bridges, components, construction

ICS 91.100.50

English version

**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**

Feuilles souples d'étanchéité - Étanchéité de ponts et
autres surfaces en béton circulables par les véhicules -
Détermination de la résistance à la pression dynamique de
l'eau après dégradation par prétraitement

Abdichtungsbahnen - Abdichtungen für Betonbrücken und
andere Verkehrsflächen auf Beton - Bestimmung des
Widerstandes gegenüber dynamischen Wasserdruck nach
Schadenvorbeanspruchung

This European Standard was approved by CEN on 14 April 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 14694:2005) 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 2005, and conflicting national standards shall be withdrawn at the latest by December 2005.

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

Introduction

The purpose of this test is to determine the resistance to pre-treatment by impact puncturing followed by dynamic water pressure testing for sheets in the waterproofing system.

The test is normally performed for single sheets but may also be performed for double sheet systems.

1 Scope

This European Standard specifies a test method for the evaluation of the resistance to impact puncturing of a sheet or sheet system.

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 13375, *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*

prEN 14695:2003, *Flexible sheets for waterproofing — Reinforced bitumen sheets for waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles — Definitions and characteristics*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13416:2001 and prEN 14695:2003 apply.

4 Test methods

4.1 Principle

Pre-treatment impact puncturing is carried out at room temperature, where a conical weight is allowed to fall freely on to the waterproofing sheet. The degree of penetration is then assessed with the aid of dynamic water pressure testing.

4.2 Apparatus and materials

Equipment for impact puncturing, with a puncturing tool consisting of $(1,0 \pm 0,01)$ kg of steel with a 90° conical point (see Figures 2 and 3).

Concrete slab, according to EN 13375 for supporting the test specimen during impact puncturing.

Suitable frame, for holding the test specimen firmly to the concrete slab.

Equipment for the water pressure test, with a dynamic water pressure applied (see Figures 4 and 5).

4.3 Preparation of test specimens

Take test samples and test pieces in accordance with EN 13416.

Select one test specimen of 400 mm × 200 mm for testing.