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NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 14691

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English Version

**Flexible sheets for waterproofing - Waterproofing of
concrete bridge decks and other concrete surfaces
trafficable by vehicles - Compatibility by heat conditioning**

Feuilles souples d'étanchéité - Étanchéité des tabliers
de ponts en béton et autres surfaces en béton
circulables par les véhicules - Détermination de la
compatibilité au conditionnement thermique

Abdichtungsbahnen - Abdichtung von Betonbrücken
und anderen Verkehrsflächen aus Beton - Bestimmung
der Verträglichkeit nach Wärmelagerung

This European Standard was approved by CEN on 6 February 2017.

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.

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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 14691:2017) 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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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 14691:2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The significant technical changes are the new reference to prEN 17048 in Clause 2, Normative references, and the tolerance of the oven temperature, in Clause 4.2.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The purpose of the test is to determine the compatibility of the waterproofing system in the installed condition by determination of the shear strength properties before and after accelerated heat conditioning.

Waterproofing systems are required to maintain performance over extended periods of time once installed on a concrete structure. Many flexible sheets used in the waterproofing of concrete bridge decks are based on materials that are subject to oxidation, migration, diffusion, and absorption of components within the system itself and/or those to which the system is adhered. These physico-chemical effects occur over time, however increased temperature will accelerate these effects. The use of an accelerated heat-conditioning test will allow the evaluation of the change in a specific mechanical property, shear strength, over a significantly shorter time period than allowing the waterproofing system to age under normal ambient conditions. The use of the shear resistance test will allow the determination of any change in properties together with an indication of any migrational or interfacial long-term incompatibility between the adherents.

1 Scope

This European Standard specifies a test method for the evaluation of the compatibility of the waterproofing system applied to a concrete surface and covered with an asphalt layer. The complete system is exposed to an accelerated heat conditioning followed by a determination of the shear strength properties before and after heat conditioning.

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

EN 13416, *Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Rules for sampling*

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

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

prEN 17048, *Flexible sheets for waterproofing - Plastic and rubber sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete - Definitions and characteristics*

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