Hot applied joint sealants - Part 10: Test method for the determination of adhesion and cohesion following continuous extension and compression



#### EESTI STANDARDI EESSÕNA

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See Eesti standard EVS-EN 13880-10:2018 sisaldab Euroopa standardi EN 13880-10:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 13880-10:2018 consists of the English text of the European standard EN 13880-10:2018.		
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# EUROPEAN STANDARD NORME EUROPÉENNE

# EN 13880-10

EUROPÄISCHE NORM

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ICS 93.080.20

Supersedes EN 13880-10:2003

#### **English Version**

# Hot applied joint sealants - Part 10: Test method for the determination of adhesion and cohesion following continuous extension and compression

Produits de scellement de joints appliqués à chaud -Partie 10: Méthode d'essai pour la détermination de l'adhésion et de la cohésion après traction et compression répétée Heiß verarbeitbare Fugenmassen - Teil 10: Prüfverfahren zur Bestimmung des Dehn- und Haftvermögens bei kontinuierlicher Dehnung und Stauchung

This European Standard was approved by CEN on 16 March 2018.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## **European foreword**

This document (EN 13880-10:2018) has been prepared by Technical Committee CEN/TC 227 "Road materials", the secretariat of which is held by DIN.

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 November 2018, and conflicting national standards shall be withdrawn at the latest by November 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13880-10:2003.

A list of all parts in the EN 13880 series, published under the general title "Hot applied joint sealants", can be found on the CEN website.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, ad, nania, 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.

#### 1 Scope

This document specifies a method for determination of adhesion and cohesion characteristics of hot applied joint sealant specimens following cyclic extensions.

NOTE The test simulates yearly joint movements due to temperature variations.

#### 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 13880-6, Hot applied joint sealants — Part 6: Method for the preparation of samples for testing

EN 13880-12, Hot applied joint sealants — Part 12: Test method for the manufacture of concrete test blocks for bond testing (recipe methods)

EN 14188-1, Joint fillers and sealants — Part 1: Specifications for hot applied sealants

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14188-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <a href="http://www.electropedia.org/">http://www.electropedia.org/</a>
- ISO Online browsing platform: available at http://www.iso.org/obp

#### 3.1

#### adhesion failures

surface area of the concrete test blocks from which the sealant is completely separated are to be evaluated for adhesive failure, calculated to the nearest  $10 \text{ mm}^2$ 

#### 3.2

#### cohesion failures

sum of the superficial areas of any ruptures on the faces of the material to the nearest 5 mm<sup>2</sup> and any cavity exceeding 3 mm in depth, measured normal to the face of the test specimen

### 4 Principle

The cohesive properties of a sealant are examined to verify its ability to adhere to concrete (primed if the manufacturer of the sealant so recommends) when subjected to cycles of repeated extensions at the appropriate test temperature defined in EN 14188-1.

#### 5 Apparatus

#### 5.1 Jig for pouring and handling of test specimen

Suitable jig to place two concrete test blocks exactly opposite each other for a joint width of  $(24,0\pm0,5)$  mm and joint length and height of  $(50,0\pm0,5)$  mm and handling the test specimen until testing without disturbing the test specimens before, during and after the removal of the jig.