

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

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13880-10:2003 sisaldab Euroopa standardi EN 13880-10:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 17.09.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13880-10:2003 consists of the English text of the European standard EN 13880-10:2003.</p> <p>This document is endorsed on 17.09.2003 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 describes a method for determining the adhesion and cohesion characteristics of hot applied joint sealant specimens following continuous extension and compression bond testing</p>	<p>Scope: This European Standard describes a method for determining the adhesion and cohesion characteristics of hot applied joint sealant specimens following continuous extension and compression bond testing</p>
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ICS 93.080.20

Võtmesõnad: adhesion, adhesive force, cohesion, construction, construction materials, continuous, elongation, expansions, joint filling, joint sealings, road construction, strain behaviour, testing, testing conditions, upsetting

ICS 93.080.20

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 2 May 2003.

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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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document EN 13880-10:2003 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 February 2004, and conflicting national standards shall be withdrawn at the latest by March 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard is one of a series of standards as listed below:

EN 13880-1, *Hot applied joint sealants — Part 1: Test method for the determination of density at 25 °C.*

EN 13880-2, *Hot applied joint sealants — Part 2: Test method for the determination of cone penetration at 25 °C.*

EN 13880-3, *Hot applied joint sealants — Part 3: Test method for the determination of penetration and recovery (resilience).*

EN 13880-4, *Hot applied joint sealants — Part 4: Test method for the determination of heat resistance — Change in penetration value.*

EN 13880-5, *Hot applied joint sealants — Part 5: Test method for the determination of flow resistance.*

prEN 13880-6, *Hot applied joint sealants — Part 6: Test method for the preparation of samples for testing.*

EN 13880-7, *Hot applied joint sealants — Part 7: Function testing of joint sealants.*

EN 13880-8, *Hot applied joint sealants — Part 8: Test method for the determination of the change in weight of fuel resistance joint sealants after fuel immersion.*

EN 13880-9, *Hot applied joint sealants — Part 9: Test method for the determination of compatibility with asphalt pavements.*

EN 13880-10, *Hot applied joint sealants — Part 10: Test method for the determination of adhesion and cohesion following continuous extension and compression.*

EN 13880-11, *Hot applied joint sealants — Part 11: Test method for the preparation of asphalt test blocks used in the function test and for the determination of compatibility with asphalt pavements.*

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

EN 13880-13, *Hot applied joint sealants — Part 13: Test method for the determination of the discontinuous extension (adherence test).*

Annexe A is informative.

1 Scope

This European Standard describes a method for determining the adhesion and cohesion characteristics of hot applied joint sealant specimens following continuous extension and compression bond testing.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 13880-2, *Hot applied joint sealants — Part 2: Test method for the determination of cone penetration at 25 °C.*

prEN 13880-6, *Hot applied joint sealants — Part 6: Test 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).*

prEN 14188-1:2001, *Joint fillers and sealants — Part 1: Specifications for hot applied sealants.*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in prEN 14188-1:2001 and the following apply.

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 mm²

3.2

cohesion failures

cohesion failure is the sum of the superficial areas of any ruptures on the faces of the material to the nearest 5 mm² 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 extension and compression at the appropriate test temperature according to prEN 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 $(24,0 \pm 0,5)$ mm and joint length and height of $(50,0 \pm 0,5)$ mm and handling the test specimen until testing without disturbing the test specimens before, during and after the removal of the jig.