

Hot applied joint sealants - Part 5: Test method for the
determination of flow resistance

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 13880-5:2024 sisaldab Euroopa standardi EN 13880-5:2024 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.03.2024.</p> <p>Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 13880-5:2024 consists of the English text of the European standard EN 13880-5:2024.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 06.03.2024.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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English Version

Hot applied joint sealants - Part 5: Test method for the determination of flow resistance

Produits d'étanchéité pour joints appliqués à chaud -
Partie 5 : Méthode d'essai pour la détermination de la
résistance à l'écoulement

Heiß verarbeitbare Fugenmassen - Teil 5:
Prüfverfahren zur Bestimmung der Fließlänge

This European Standard was approved by CEN on 4 January 2024.

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European foreword

This document (EN 13880-5:2024) has been prepared by Technical Committee CEN/TC 227 “Road materials”, 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of an identical text or by endorsement, at the latest by September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

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 13880-5:2004.

The main changes compared to the previous edition are listed below:

- normative references have been updated;
- scope, definition and principle have been clarified;
- preparation and conditioning actions have been better specified;
- procedure has been redrafted for better description.

This document 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*

EN 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 testing (recipe methods)*

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

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document describes a method for determining the flow resistance of hot applied joint sealants to characterize the stability at elevated temperature.

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 12594, *Bitumen and bituminous binders — Preparation of test samples*

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

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

3 Term and definition

For the purposes of this document, the following terms and definitions apply.

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

- ISO Online browsing platform: available at <https://www.electropedia.org/>
- IEC Electropedia: available at <https://www.iso.org/obp>

3.1

flow resistance

resistance to the movement of the lower transverse edge of a specific test specimen after loading with elevated temperature

4 Principle

A representative portion of the sealant is prepared and a rectangular plate-shaped specimen is formed with the help of a metal moulding on the surface of a rectangular metal plate as sample carrier. The rectangular plate-shaped specimen is orthogonal adjusted on the surface of the metal plate. After specimen grouting and cooling to room temperature this metal plate, together with its specimen, is sloped to the horizontal level in a test stand, hereby the dimension of the lower transverse edge is oriented horizontally. The specimen in this configuration is subjected to an elevated temperature over 5 h.

After conditioning the flow movement of the former even and straight lower transverse edge of the specimen is measured as test result.

5 Apparatus

5.1 Forced-air ventilated Laboratory oven conforming to ISO 188, with low air speed, capable of maintaining the test specimen and apparatus at the test temperature of $(60,0 \pm 1) ^\circ\text{C}$.

5.2 Metal frame (grouting frame) to prepare the sealant rectangular plate-shaped specimen comprising a steel frame conforming to Figure 1 with external dimensions (100 ± 1) mm long \times (80 ± 1) mm wide and $(3,2 \pm 0,05)$ mm thickness with an internal grouting section of (60 ± 1) mm long \times (40 ± 1) mm wide.

5.3 Release agent comprising a mixture of glycerine and dextrin or silicone paste or something similar.