

Cold applied joint sealants - Test methods - Part 4:  
Determination of the change in mass and volume after  
immersion in test fuels and liquid chemicals

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 14187-4:2017 sisaldab Euroopa standardi EN 14187-4:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 14187-4:2017 consists of the English text of the European standard EN 14187-4:2017.
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English Version

## Cold applied joint sealants - Test methods - Part 4: Determination of the change in mass and volume after immersion in test fuels and liquid chemicals

Mastics pour joints appliqués à froid - Méthodes d'essai  
- Partie 4 : Détermination de la variation de masse et  
de volume après immersion dans des carburants  
d'essai et des produits chimiques liquides

Kalt verarbeitbare Fugenmassen - Prüfverfahren - Teil  
4: Bestimmung der Massen- und Volumenänderung  
nach Lagerung in Prüfkraftstoffen und flüssigen  
Chemikalien

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

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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 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 14187-4:2017) 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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.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 14187-4:2003.

Apart from editorial changes the following major changes have been made in this revision:

- a) Change of the title;
- b) Table 1, Change of the test fuels and addition of de-icing liquids in accordance with new technical requirements.

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

EN 14187-1, *Cold applied joint sealants — Test methods — Part 1: Determination of rate of cure.*

EN 14187-2, *Cold applied joint sealants — Test methods — Part 2: Determination of tack free time.*

EN 14187-3, *Cold applied joint sealants — Test methods — Part 3: Determination of self-levelling properties.*

EN 14187-4, *Cold applied joint sealants — Test methods — Part 4: Determination of the change in mass and volume after immersion in test fuels and liquid chemicals.*

EN 14187-5, *Cold applied joint sealants — Test methods — Part 5: Determination of the resistance to hydrolysis.*

EN 14187-6, *Cold applied joint sealants — Test methods — Part 6: Determination of the adhesion/cohesion properties after immersion in test fuels and liquid chemicals.*

EN 14187-7, *Cold applied joint sealants — Test methods — Part 7: Determination of the resistance to flame.*

EN 14187-8, *Cold applied joint sealants — Test methods — Part 8: Determination of resistances to artificial weathering by UV-irradiation.*

EN 14187-9, *Cold applied joint sealants — Test methods — Part 9: Function testing of joint sealants.*

**WARNING — Attention is drawn to the health and safety at work and the need to ensure that this test is carried out under suitable environmental conditions to provide adequate protection to persons against the risk of contact or inhalation of toxic liquid chemicals.**

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.

## 1 Scope

This European Standard describes a test method for determining the resistance of cold applied joint sealants to the action of liquid chemicals by measuring the change in mass and volume after immersion in test fuels or in liquid chemicals.

## 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 14188-4, *Joint fillers and sealants - Part 4: Specifications for primers to be used with joint sealants*

EN ISO 6927, *Buildings and civil engineering works - Sealants - Vocabulary (ISO 6927)*

EN ISO 8340, *Building construction - Sealants - Determination of tensile properties at maintained extension (ISO 8340)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 6927 apply.

## 4 Principle

Test specimens cut from  $(2 \pm 0,1)$  mm thick sheets of the cured cold applied joint sealant are immersed for a required period of time in the test fuel or liquid chemical. Changes in mass and volume of the test specimens after immersion are determined.

## 5 Apparatus and materials

**5.1** Stopped glass bottle or tube of such dimension that the suspended test specimens remain completely immersed in the specified volume of the test liquid and are freely exposed on all surfaces without restraint.

**5.2** Balance, capable of weighing the suspended test specimens immersed in distilled water and accurate to  $\leq 1$  mg.

**5.3** Mould from aluminium or brass with an internal diameter of  $(150 \pm 10)$  mm and a depth of  $(2,0 \pm 0,1)$  mm.

**5.4** A convection type oven, controllable at temperatures between 35 °C and 50 °C with an accuracy of 2 °C.

**5.5** Test liquids with compositions as given in Table 1. In addition the relevant jet fuel, hydraulic oil, engine oil, defrosting fluid, glycol or any other liquid chemical can be used as required from the intended application (see Annex A).