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Building and civil engineering sealants - Determination of adhesion/cohesion properties at constant temperature (ISO 9046:2021)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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|---|--|
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| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.04.2021. | Date of Availability of the European standard is 07.04.2021. |
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ICS 91.100.50

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EUROPEAN STANDARD

EN ISO 9046

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN ISO 9046:2004

English Version

**Building and civil engineering sealants - Determination of
adhesion/cohesion properties at constant temperature
(ISO 9046:2021)**

Mastics pour le bâtiment et le génie civil -
Détermination des propriétés d'adhésivité/cohésion à
température constante (ISO 9046:2021)

Dichtstoffe im Hoch- und Tiefbau - Bestimmung des
Haft- und Dehnverhaltens von Dichtstoffen bei
konstanter Temperatur (ISO 9046:2021)

This European Standard was approved by CEN on 9 November 2020.

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

European foreword

This document (EN ISO 9046:2021) has been prepared by Technical Committee ISO/TC 59 "Buildings and civil engineering works" in collaboration with CCMC.

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 October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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 ISO 9046:2004.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 9046:2021 has been approved by CEN as EN ISO 9046:2021 without any modification.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 8, *Sealants*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/SS B02, *Structures*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 9046:2002), which has been technically revised.

The main changes compared to the previous edition are as follows:

- modified the title;
- modified the rate of test machine;
- modified the requirement of relative humidity;
- modified the anti-adherent substrate.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Building and civil engineering sealants — Determination of adhesion/cohesion properties at constant temperature

1 Scope

The document specifies a method for the determination of the adhesion/cohesion properties of sealants with predominantly plastic behaviour which are used in buildings and civil engineering works.

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.

ISO 6927, *Buildings and civil engineering works — Sealants — Vocabulary*

ISO 13640, *Buildings and civil engineering works — Sealants — Specifications for test substrates*

3 Terms and definitions

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

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

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

4 Principle

Test specimens are prepared in which the sealant to be tested adheres to two parallel surfaces. After submission to cycles of compression and extension, the test specimens are examined for evidence of loss of adhesion or cohesion.

5 Apparatus

5.1 Substrate material

The mortar or anodized aluminium or glass, used for the preparation of test specimens shall be as defined in ISO 13640. Other substrate materials may be used as agreed by the parties concerned.

For each test specimen, two substrate pieces of the same material are required with dimensions as shown in [Figures 1](#) and [2](#). Test substrates of other dimensions may be used, but the dimensions of the sealant bead and the area of adhesion shall be the same as those shown in [Figures 1](#) and [2](#).

5.2 Spacers

For the preparation of the test specimens, the spacers shall be of dimensions 12 mm × 12 mm × 12,5 mm with anti-adherent surface (see [Figures 1](#) and [2](#)).