Structural adhesives - Determination of the pot life (working life) of multi-component adhesives (ISO 10364:2024)

EESTI STANDARDI EESSÕNA

NATIONAL FORFWORD

See Eesti standard EVS-EN ISO 10364:2024 sisaldab Euroopa standardi EN ISO 10364:2024 ingliskeelset teksti.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.02.2024.

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This Estonian standard EVS-EN ISO 10364:2024 consists of the English text of the European standard EN ISO 10364:2024.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Date of Availability of the European standard is 07.02.2024.

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ICS 83.180

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EUROPEAN STANDARD

NORME EUROPÉENNE

EN ISO 10364

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English Version

Structural adhesives - Determination of the pot life (working life) of multi-component adhesives (ISO 10364:2024)

Adhésifs structuraux - Détermination de la vie en pot (durée d'utilisation) des adhésifs multicomposants (ISO 10364:2024)

Strukturklebstoffe - Bestimmung der Topfzeit (Verarbeitungszeit) von Mehrkomponentenklebstoffen (ISO 10364:2024)

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

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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 10364:2024) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 193 "Adhesives" the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by August 2024, and conflicting national standards shall be withdrawn at the latest by August 2024.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 ISO 10364:2018.

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

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Endorsement notice

The text of ISO 10364:2024 has been approved by CEN as EN ISO 10364:2024 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 document 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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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 61, *Plastics*, Subcommittee SC 11, *Products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 193, *Adhesives*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 10364:2015), which has been technically revised.

The main changes are as follows:

— <u>subclause 6.6</u>, Method 5: Determination by control of "snap time", has been added.

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.

Structural adhesives — Determination of the pot life (working life) of multi-component adhesives

SAFETY STATEMENT — Persons using this document should be familiar with normal laboratory practice, if applicable. This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to determine any regulatory requirements prior to use.

1 Scope

This document specifies methods for determining the pot life of multi-part adhesives, in order to be able to determine whether the pot life conforms to the minimum specified working life required of an adhesive.

The different methods described in this document to measure the property do not necessarily provide identical results.

The test methods described are suitable for assessing all multi-part adhesives, and especially epoxy based and polyurethane based adhesives, but they are not suitable for some acrylic-based adhesives.

NOTE 1 Some of the methods described in this document can also be suitable for determination of working life of one-part adhesives that react to humidity (e.g. PUR prepolymers).

NOTE 2 This document can also be used for assessing non-structural adhesives.

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 472, Plastics — Vocabulary

ISO 2555, Plastics — Resins in the liquid state or as emulsions or dispersions — Determination of apparent viscosity using a single cylinder type rotational viscometer method

ISO 3219-2, Rheology — Part 2: General principles of rotational and oscillatory rheometry

ISO 15605, Adhesives — Sampling

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472 and the following 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 https://www.electropedia.org/

3.1 pot life working life

maximum period of time during which a multi-part adhesive can be used after mixing the components