Structural adhesives - Determination of the pot life (working life) of multi-component adhesives (ISO 10364:2015)



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 10364:2018 sisaldab Euroopa standardi EN ISO 10364:2018 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 10364:2018 consists of the English text of the European standard EN ISO 10364:2018.			
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	teate This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.			
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 07.03.2018.	Date of Availability of the European standard is 07.03.2018.			
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.			

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile <u>standardiosakond@evs.ee</u>.

ICS 83.180

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega: Koduleht <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EN ISO 10364

EUROPÄISCHE NORM

March 2018

ICS 83.180

Supersedes EN 14022:2010

English Version

Structural adhesives - Determination of the pot life (working life) of multi-component adhesives (ISO 10364:2015)

Adhésifs structuraux - Détermination de la vie en pot (délai d'utilisation) d'adhésifs multicomposants (ISO 10364:2015)

Strukturklebstoffe - Bestimmung der Topfzeit (Verarbeitungszeit) von Mehrkomponentenklebstoffen (ISO 10364:2015)

This European Standard was approved by CEN on 18 April 2017.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

The text of ISO 10364:2015 has been prepared by Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10364:2018 by 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 September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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 14022:2010.

According to the CEN-CENFLEC 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.

Endorsement notice

The text of ISO 10364:2015 has been approved by CEN as EN ISO 10364:2018 without any modification.

Co	ntents	S	Page
Fore	word		iv
1	Scope	e	1
2	Norm	native references	1
3	Term	s and definitions	1
4	Princ	iple	2
5	Appa	ratus	2
6	Proce 6.1 6.2 6.3 6.4 6.5	Sampling Method 1: Determination from the change in apparent viscosity Method 2: Determination from the change in extrusion rate Method 3: Determination from the reaction temperature Method 4: Determination by means of a drying recorder	3 3 4 4
7	Expre	ession of results	6
8	Test r	reporty	6
Bibl	iograph	A COLON OCHO COLON OCH	8
ര ഭവ) 2015 Al	Il rights recorred	iii

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This third edition cancels and replaces the second edition (ISO 10364:2007), which has been technically revised.

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

SAFETY STATEMENT — Persons using this International Standard should be familiar with normal laboratory practice, if applicable. This International Standard 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 ensure compliance with any regulatory requirements.

1 Scope

This International Standard 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.

For the purposes of simplification, the term "pot life" is deemed to have the same meaning as "working life" and will be used to represent both throughout this International Standard. Methods described to measure the property provide different answers. So the results shall be specified with respect to the method used.

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 International Standard can also be suitable for determination of working life of one-part adhesives that react to humidity (e.g. PUR prepolymers).

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

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.

ISO 472, *Plastics* — *Vocabulary*

ISO 2555, Plastics — Resins in the liquid state or as emulsions or dispersions — Determination of apparent viscosity by the Brookfield Test method

ISO 3219, Plastics — Polymers/resins in the liquid state or as emulsions or dispersions — Determination of viscosity using a rotational viscometer with defined shear rate

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.

3.1 pot life working life

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