# STN

#### Lepidlá na nosné drevené konštrukčné dielce Skúšobné metódy Časť 7: Stanovenie spracovateľnosti zmesi v referenčných podmienkach

STN EN 302-7

66 8503

Adhesives for load-bearing timber structures - Test methods - Part 7: Determination of the working life under referenced conditions

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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## EUROPEAN STANDARD NORME EUROPÉENNE

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#### **English Version**

# Adhesives for load-bearing timber structures - Test methods - Part 7: Determination of the working life under referenced conditions

Adhésifs pour structures portantes en bois - Méthodes d'essai - Partie 7 : Détermination de la durée d'utilisation dans des conditions de référence Klebstoffe für tragende Holzbauteile - Prüfverfahren -Teil 7: Bestimmung der Gebrauchsdauer bei Referenzbedingungen

This European Standard was approved by CEN on 18 December 2022.

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

### EN 302-7:2023 (E)

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#### **European foreword**

This document (EN 302-7:2023) has been prepared 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of an identical text or by endorsement, at the latest by August 2023, and conflicting national standards shall be withdrawn at the latest by August 2023.

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 302-7:2013.

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

- a) the list of standards in the Introduction has been updated;
- b) one new clause (Symbols) has been introduced;
- c) in 6.2, "Brookfield type viscometer" has been changed to "single cylinder type rotational viscometer";
- d) Clause 9 Test report has been changed.

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.

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, 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, Türkiye and the United Kingdom.

#### Introduction

This document is one of a series dealing with adhesives for use with timber structures, and is published in support of the EN 1995 series *Eurocode 5: Design of timber structures*. The series consists of five classification and performance requirements for adhesives for load-bearing timber structures, phenolic and aminoplastic adhesives (EN 301), one component polyurethane adhesives (EN 15425), emulsion polymer isocyanate adhesives (EN 16254), two component epoxy and polyurethane adhesives for glued in rods (EN 17334) and for on-site repair of cracked timber structures (EN 17418) and all together twelve test methods (EN 302-1, EN 302-2, EN 302-3, EN 302-4, EN 302-5, EN 302-6, EN 302-7, EN 302-8, EN 15416-3, EN 15416-4 and EN 15416-5).

These European Standards have the following titles:

EN 301, Adhesives, phenolic and aminoplastic, for load-bearing timber structures — Classification and performance requirements

EN 302, *Adhesives for load-bearing timber structures* — *Test methods*:

- Part 1: Determination of longitudinal tensile shear strength
- Part 2: Determination of resistance to delamination
- Part 3: Determination of the effect of acid damage to wood fibres by temperature and humidity cycling on the transverse tensile strength
- Part 4: Determination of the effects of wood shrinkage on the shear strength
- Part 5: Determination of maximum assembly time under referenced conditions
- Part 6: Determination of the minimum pressing time under referenced conditions
- Part 7: Determination of the working life under referenced conditions
- Part 8: Static load test of multiple bond line specimens in compression shear

EN 15416, Adhesives for load bearing timber structures other than phenolic and aminoplastic — Test methods:

- Part 1: Long-term tension load test perpendicular to the bond line at varying climate conditions with specimens perpendicular to the glue line (Glass house test)
- Part 3: Creep deformation test at cyclic climate conditions with specimens loaded in bending shear
- Part 4: Determination of open assembly time under referenced conditions
- Part 5: Determination of minimum pressing time under referenced conditions

EN 15425, Adhesives — One component polyurethane (PUR) for load-bearing timber structures — Classification and performance requirements

EN 16254, Adhesives — Emulsion polymer isocyanate (EPI) for load-bearing timber structures — Classification and performance requirements

EN 17334, Glued-in rods in glued structural timber products — Testing, requirements and bond shear strength classification

EN 17418, Two-component epoxy and polyurethane adhesives for on-site repair of cracked timber structures — Testing, requirements and repair strength verification

#### **Safety statement**

Persons using this document should be familiar with the normal laboratory practice, if applicable. This document cannot address all of the safety problems, 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 conditions.

#### **Environmental statement**

It is understood that some of the material permitted in this standard can have a negative environmental impact. As technological advantages lead to better alternatives for these materials, they will be eliminated from this standard to the greatest extent possible.

At the end of the test, it is recommended that the users of the standard take care to carry out an appropriate disposal of the wastes, according to local regulations.

#### 1 Scope

This document specifies a method for determining the working life for adhesives mixed with hardener for load-bearing timber structures, by a viscosity test.

This method does not apply to determining the working life of a multi-component adhesive whose actual working life is very short.

This document is only intended for obtaining a reliable basis for comparison between adhesives. The method gives results which cannot be applied to the safe manufacture of timber structures without modifications for the influences of factory temperature and relative air humidity.

#### 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 923, Adhesives - Terms and definitions

EN ISO 2555:2018, Plastics - Resins in the liquid state or as emulsions or dispersions - Determination of apparent viscosity using a single cylinder type rotational viscometer method (ISO 2555:2018

koniec náhľadu – text ďalej pokračuje v platenej verzii STN