

STN	Lepidlá na nosné drevené konštrukčné dielce Skúšobné metódy Časť 2: Stanovenie odolnosti proti delaminácii	STN EN 302-2 66 8503
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Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/23

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EUROPEAN STANDARD

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English Version

Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination

Adhésifs pour structures portantes en bois - Méthodes d'essai - Partie 2 : Détermination de la résistance à la délamination

Klebstoffe für tragende Holzbauteile - Prüfverfahren - Teil 2: Bestimmung der Delaminierungsbeständigkeit

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

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EN 302-2:2023 (E)

Contents		Page
European foreword		3
Introduction		4
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Symbols	7
5	Principle	7
6	Apparatus	7
7	Method	8
7.1	Selection of timber	8
7.2	Preparation of the bonded members	8
7.2.1	Bonded members with thin glue lines	8
7.2.2	Bonded members with thick glue lines	9
7.3	Preparation of test pieces	10
7.3.1	Bonded members with thin glue lines	10
7.3.2	Bonded members with thick glue lines	10
7.4	Test procedures	10
7.4.1	General	10
7.4.2	High temperature procedure (for type I adhesives)	10
7.4.3	Low temperature procedure (for type II adhesives)	11
7.5	Measurement and evaluation of delamination	12
8	Expression of results	13
9	Test report	13
9.1	The adhesives	13
9.2	Preparation of test pieces and testing procedure	14
9.3	Test results	14

European foreword

This document (EN 302-2:2023) 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 302-2:2017.

Compared to EN 302-2:2017, the following modifications have been made:

- a) the list of standards in the Introduction has been updated;
- b) two new standards, EN 17334 and EN 17418, have been included in the Scope;
- c) two new clauses (Terms and definitions and Symbols) have been introduced;
- d) for preservative treated wood the test with pine also covers fir and spruce;
- e) 2 mm glue line thickness has been replaced by thick glue lines;
- f) nominal glue line thickness of test pieces has been included under 9.2;
- g) the Bibliography has been deleted.

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.

EN 302-2:2023 (E)**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 and EN 302-8 and EN 15416-1, 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.

EN 302-2:2023 (E)

1 Scope

This document specifies a method for determining the resistance to delamination in glue lines.

It is applicable to the following applications:

- a) for assessing the compliance of adhesives with EN 301, EN 15425, EN 16254, EN 17334 and EN 17418;
- b) for assessing the suitability and quality of adhesives for load-bearing timber structures;
- c) for comparing the effects on the bond strength resulting from the choice of bonding conditions, from different climatic conditioning and from the treatment of the test pieces before and after bonding.

This test does not apply to modified and stabilized wood with strongly reduced swelling and shrinkage properties, such as acetylated wood, heat-treated wood and polymer impregnated wood.

This test is intended primarily to obtain performance data for the classification of adhesives for load-bearing timber structures according to their suitability for use in defined climatic environments.

This method is not intended to provide data for structural design and does not necessarily represent the performance of the bonded member in service.

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 384:2016+A2:2022, *Structural timber - Determination of characteristic values of mechanical properties and density*

EN 923, *Adhesives - Terms and definitions*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN