SLOVENSKI STANDARD
oSIST prEN 302-8:2015

01-julij-2015

Lepila za nosilne lesene konstrukcije - Preskusne metode - 8. del: Preskus statične obremenitve preskušancev z več lepljenimi spoji pri tlačni strižni obremenitvi

Adhesives for load-bearing timber structures - Test methods - Part 8: Static load test of multiple bond line specimens in compression shear

Klebstoffe für tragende Holzbauteile - Prüfverfahren - Teil 8: Statische Belastungsprüfung an Prüfkörpern mit mehreren Klebstofffugen bei Druck-Scherbeanspruchung

Adhésifs pour structures portantes en bois - Méthodes d'essai - Partie 8 : Essai de charge statique sur des éprouvettes à joints multiples en cisaillement par compression

Ta slovenski standard je istoveten z: **prEN 302-8**

ICS:

83.180	Lepila	Adhesives
91.080.20	Lesene konstrukcije	Timber structures

oSIST prEN 302-8:2015 **en,fr,de**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 302-8

April 2015

ICS 83.180

Will supersede EN 15416-2:2007

English Version

Adhesives for load-bearing timber structures - Test methods - Part 8: Static load test of multiple bond line specimens in compression shear

Adhésifs pour structures portantes en bois - Méthodes d'essais - Partie 8 : Durée pour obtenir la rupture des éprouvettes par essais de cisaillement de compression

Klebstoffe für tragende Holzbauteile - Prüfverfahren - Teil 8: Statische Belastungsprüfung an Prüfkörpern mit mehreren Klebstofffugen bei Druck-Scherbeanspruchung

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 193.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Foreword

This document (prEN 302-8:2015) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by AENOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15416-2:2007.

The following modifications have been made:

a) title has been changed;

b) EN 301 and EN 16254 included in the scope;

c) introduction of (50 ± 2) °C and (90 ± 2) °C in Table 1, climate 1, with reference to EN 15425;

d) layout has been made in line with EN 302-1:2013 to EN 302-7:2013;

e) new drawings of the test jig with some adjusted part dimensions are included.

This document is one of a series dealing with adhesives for use with timber structures, and is published in support to EN 1995, *Eurocode 5: Design of timber structures* (all parts).

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The series consists of

— three classification and performance requirements for adhesives for load-bearing timber structures; phenolic and aminoplastic adhesives (EN 301), one component polyurethane adhesives (EN 15425) and emulsion polymerized isocyanate adhesives (EN 16254), and

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— twelves test methods (EN 302 parts 1 to 8, EN 15416 parts 1, 3, 4 and 5).

These European Standards have the following titles:

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

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

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

— EN 302-1, *Adhesives for load-bearing timber structures - Test methods - Part 1: Determination of longitudinal tensile shear strength*

— EN 302-2, *Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination*

— EN 302-3, *Adhesives for load-bearing timber structures - Test methods - Part 3: Determination of the effect of acid damage to wood fibres by temperature and humidity cycling on the transverse tensile strength*

— EN 302-4, *Adhesives for load-bearing timber structures - Test methods - Part 4: Determination of the effects of wood shrinkage on the shear strength*

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— EN 302-5, *Adhesives for load-bearing timber structures - Test methods - Part 5: Determination of maximum assembly time under referenced conditions*

— EN 302-6, *Adhesives for load-bearing timber structures - Test methods - Part 6: Determination of the minimum pressing time under referenced conditions*

— EN 302-7, *Adhesives for load-bearing timber structures - Test methods - Part 7: Determination of the working life under referenced conditions*

— EN 302-8, *Adhesives for load-bearing timber structures - Test methods - Part 8: Static load test of multiple bond line specimens in compression shear*

— EN 15416-1, *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 (Glasshouse test)*

— EN 15416-3, *Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 3: Creep deformation test at cyclic climate conditions with specimens loaded in bending shear*

— EN 15416-4, *Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 4: Determination of open assembly time under referenced conditions*

— EN 15416-5, *Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 5: Determination of minimum pressing time under referenced conditions*

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Introduction

Safety statement

Persons using this European Standard should be familiar with the normal laboratory practice, if applicable. This European Standard 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 European Standard may have negative environmental impact. As technological advantages lead to better alternatives for these materials, they will be eliminated from this European Standard to the extent possible.

At the end of the test, it is recommended that the user of this European Standard take care to carry out an appropriate disposal of the wastes, according to local regulation.

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1 Scope

This European Standard specifies a method of determining the ability of adhesive bonds to resist static load. It is applicable to adhesives used in load bearing timber structures.

It is suitable for the following applications:

a) for assessing the compliance of adhesives according to EN 301, EN 15425 and EN 16254;

b) for assessing the suitability and quality of adhesives for load-bearing timber structures;

c) for assessing the effect on the bond strength resulting from constant load at different climate conditions.

This method 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, 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.

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EN 301:2013, *Adhesives, phenolic and aminoplastic, for load-bearing timber structures - Classification and performance requirements*

prEN 15425:2015, *Adhesives - One component polyurethane (PUR) for load-bearing timber structures - Classification and performance requirements*

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EN 16254:2013, *Adhesives - Emulsion polymerized isocyanate (EPI) for load-bearing timber structures - Classification and performance requirements*

ASTM D 3535-07a, *Standard Test Method for Resistance to Creep Under Static Loading for Structural Wood Laminating Adhesives Used Under Exterior Exposure Conditions*

3 Principle

Bonded test pieces are subjected to a constant compression shear load under a series of three different climates. Number of failures and the amount of deformation is measured after the end of the last climate cycle.

4 Apparatus

4.1 Test jig

The test equipment is similar to that described in ASTM D 3535–07a, with the following main exceptions:

— modification of the spring characteristics (see Figure 1 and Figure 2);

— modification of some test jig dimensions;

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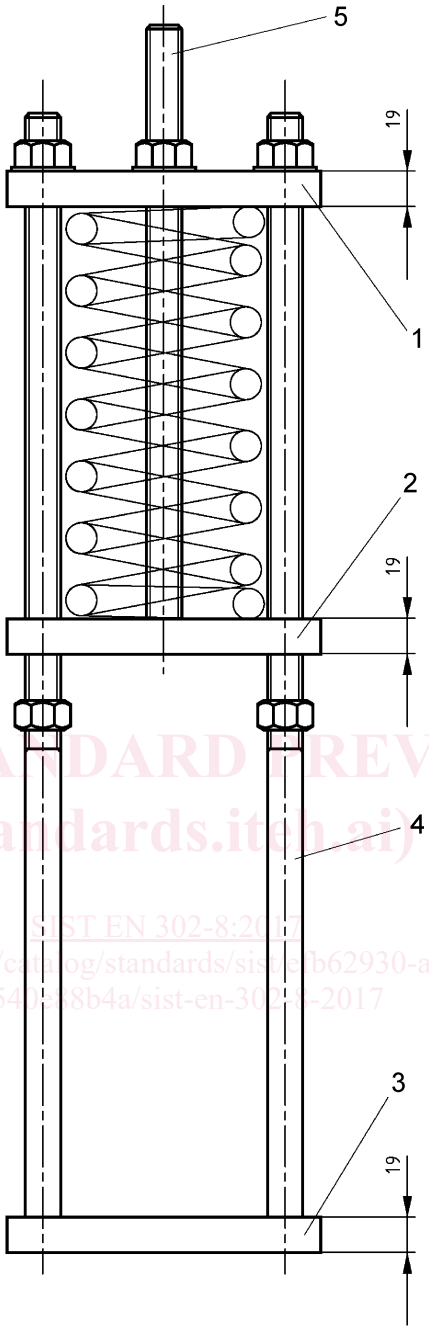
Dimensions in millimetres



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Key

1 top plate
2 spacer plate
3 base plate
4 tension rod x 4, diameter 16 mm
5 centre rod x 1, diameter 16 mm

Figure 1 — Test jig

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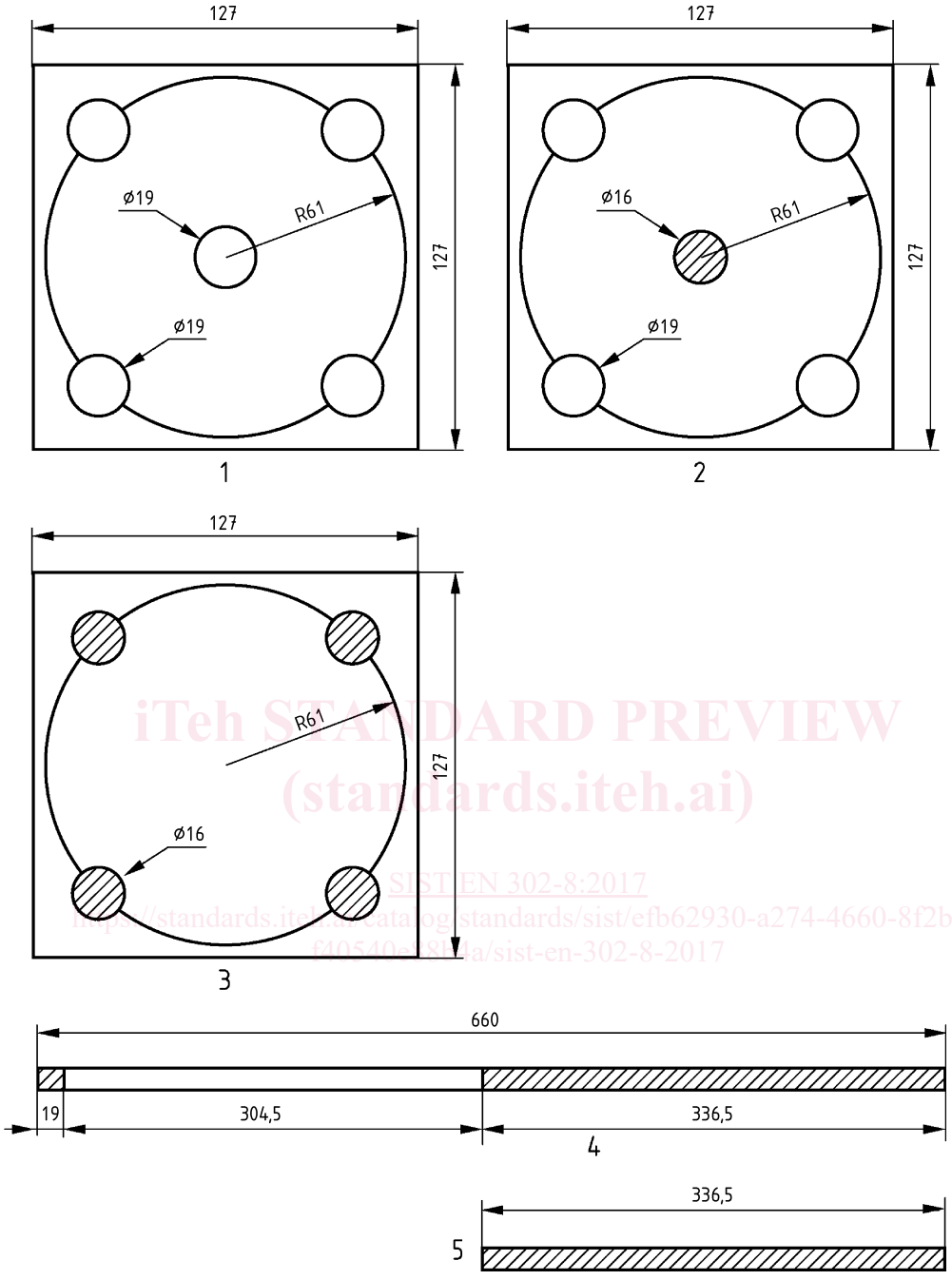
Dimensions in millimetres



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Key

1 top plate
2 spacer plate
3 base plate
4 tension rod x 4, diameter 16 mm
5 centre rod x 1, diameter 16 mm

Figure 2 — Dimensions of plates and rods

If equipment according to ASTM D 3535–07a is used, distance blocks need to be placed on top and under the specimen. The distance blocks shall be prepared in such a way that the two contact surfaces, between the distance block and the jig and between the distance block and the specimen, are parallel. Blocks produced