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Träkonstruktioner – Dymlingformade förbindare av stål (inkl. klammer) – Krav

Timber structures – Dowel-type fasteners – Requirements

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Europastandarden EN 14592:2008+A1:2012 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 14592:2008+A1:2012.

Denna standard ersätter SS-EN 14592:2008, utgåva 1.

The European Standard EN 14592:2008+A1:2012 has the status of a Swedish Standard. This document contains the official version of EN 14592:2008+A1:2012.

This standard supersedes the Swedish Standard SS-EN 14592:2008, edition 1.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Bärande träkonstruktioner, SIS/TK 182/AG 4.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14592:2008+A1

May 2012

ICS 21.060.01; 91.080.20

Supersedes EN 14592:2008

English Version

Timber structures - Dowel-type fasteners - Requirements

Structures en bois - Eléments de fixation de type tige - Exigences

Holzbauwerke - Stiftförmige Verbindungsmittel - Anforderungen

This European Standard was approved by CEN on 9 August 2008 and includes Amendment 1 approved by CEN on 9 April 2012.

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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
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 14592:2008+A1:2012: E

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Foreword

This document (EN 14592:2008+A1:2012) has been prepared by Technical Committee CEN/TC 124 “Timber structures”, the secretariat of which is held by AFNOR.

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 November 2012, and conflicting national standards shall be withdrawn at the latest by November 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1, approved by CEN on 2012-04-09.

This document supersedes EN 14592:2008.

The start and finish of text introduced or altered by amendment is indicated in the text by tags 〚A1〉 〈A1〛.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

For relationship with EC Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the requirements and test methods for materials, geometry, strength, stiffness and durability ascpects (i.e. corrosion protection) of dowel-type fasteners for use in load bearing timber structures.

Only dowel-type fasteners manufactured from steel are covered by this European Standard. For the purpose of this standard, dowel-type fasteners for timber structures are taken to be nails, staples, screws, dowels, and bolts with nuts. Definitions of these items are given in Clause 3. This European Standard specifies also the evaluation of conformity procedures and includes requirements for marking of these products.

〚A1〛 This European Standard does not cover fasteners treated with fire retardants to improve their fire performance.

This European Standard covers fasteners that may be coated for the following purposes:

1 Corrosion protection (e.g. hot dip galvanization, epoxy coating);

2 Lubricants (to facilitate insertion);

3 Withdrawal enhancement and/or collation (adhesive coating). 〚A1〛

2 Normative references

The following referenced documents are indispensable for the application 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 409, *Timber structures - Test methods - Determination of the yield moment of dowel type fasteners - Nails*

EN 1382, *Timber structures - Test methods - Withdrawal capacity of timber fasteners*

EN 1383:1999, *Timber structures - Test methods - Pull-through resistance of timber fasteners*

EN 1995-1-1:2004, *Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings*

EN 10016 (all parts), *Non-alloy steel rod for drawing and/or cold rolling*

EN 10025-2, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10025-3, *Hot rolled products of structural steels - Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels*

EN 10083-1, *Steels for quenching and tempering - Part 1: General technical delivery conditions*

EN 10083-2, *Steels for quenching and tempering - Part 2: Technical delivery conditions for non alloy steels*

〚A1〛 EN 10088 (all parts), *Stainless steels* 〚A1〛

EN 10149-1, *Hot-rolled flat products made of high yield strength steels for cold forming – Part 1: General delivery conditions*

EN 10218-1, *Steel wire and wire products - General - Part 1: Test methods*

[A1] EN 10263 (all parts), *Steel rod, bars and wire for cold heading and cold extrusion*

EN 10269, *Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties* [A1]

[A1] EN 10277-2, *Bright steel products - Technical delivery conditions - Part 2: Steels for general engineering purposes* [A1]

EN 14358, *Timber structures - Calculation of characteristic 5-percentile values and acceptance criteria for a sample*

[A1] EN 15737, *Timber structures - Test methods - Torsional resistance of driving in screws* [A1]

EN ISO 780, *Packaging - Pictorial marking for handling of goods (ISO 780:1997)*

EN ISO 1461, *Hot dip galvanised coatings on fabricated iron and steel articles - Specifications and test methods (ISO 1461:1999)*

EN ISO 4014, *Hexagon head bolts - Product grades A and B (ISO 4014:1999)*

EN ISO 4016, *Hexagon head bolts - Product grade C (ISO 4016:1999)*

EN ISO 4017, *Hexagon head screws - Product grades A and B (ISO 4017:1999)*

EN ISO 4018, *Hexagon head screws - Product grade C (ISO 4018:1999)*

EN ISO 4032, *Hexagon nuts, style 1 - Product grades A and B (ISO 4032:1999)*

EN ISO 4034, *Hexagon nuts - Product grade C (ISO 4034:1999)*

[A1] EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1:2009)* [A1]

EN ISO 9001, *Quality management systems - Requirements (ISO 9001:2000)*

EN ISO 10666:1999, *Drilling screws with tapping screw thread - Mechanical and functional properties (ISO 10666:1999)*

[A1] *deleted text* [A1]

ISO 2081, *Metallic coatings - Electroplated coatings of zinc on iron or steel*

3 Terms and definitions

For the purposes of this document, terms and definitions given in EN 1995-1-1:2004 and the following apply.

3.1
plain shank nail (smooth nail)
nail that has a constant cross-section along its entire length (e.g. round, square or grooved nails)

3.2
threaded nail
nail that has its shank profiled or deformed over a part of its length [A1] l_g as defined in Figure 1 b [A1]

3.3
staple crown width
distance between the outer edges of the staple legs

3.4
dowel
cylindrical metal fastener that does not contain an integral head

NOTE Dowels may be threaded and have nuts fitted at either end.

3.5
bolt
cylindrical metal fastener containing an integral head at one end and a threaded portion to receive a nut at the other end

3.6
withdrawal parameter
parameter measuring the resistance of a timber test piece to the withdrawal of a timber fastener

3.7
head pull-through parameter
parameter measuring the resistance of a timber test piece to the pulling through of the head of a timber fastener or the crown of a staple

3.8
tensile capacity
tensile capacity measured during a test following the principle of EN 1383, as described in 6.1.4.5

3.9
nominal diameter
screws intended for use in load bearing timber structures, *d* being the maximum outer cross-section diameter of the threaded part, and for nails *d* being the minimum outer cross-sectional dimension of the unprofiled part, when measured as described in 5.3

NOTE For plain shank nails, spiral rolled nails or annular ring shank nails, intended for use in load bearing timber structures, *d* is the minimum outer cross-sectional diameter of the round nail wire, or the side length dimension of the minimum cross-sectional for a square nail, for all other profiled nails, intended for use in load bearing timber structures; *d* is the minimum cross-sectional diameter of the original wire rod, from which the profiled nail has been produced (see Figure 1).