



BSI Standards Publication

Eurocode 5 — Design of timber structures

Part 3: Execution

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 1995-3:2025.

The UK participation in its preparation was entrusted to Technical Committee B/525/5, Structural use of timber.

A list of organizations represented on this committee can be obtained on request to its committee manager.

National choice is allowed in this standard where explicitly stated within notes. The National Annex to this standard contains the national choices to be used for buildings and civil engineering works constructed in the UK.

The first generation of EN Eurocodes was published between 2002 and 2007, with conflicting British Standards withdrawn in 2010. This document forms part of the second generation of EN Eurocodes.

The second generation of EN Eurocodes is expected to be published between 2023 and 2026. These documents are being published as soon as they are available. This is being done to enable users to prepare for the transition from the first generation to second generation of EN Eurocodes.

UK adoptions of the first generation of EN Eurocodes will be withdrawn by BSI on 30 March 2028. Until that date, the first generation documents should be considered as the applicable standards for buildings and civil engineering works constructed in the UK unless otherwise specified by the relevant authority or in the specification for a particular project.

This standard is intended to be used with its National Annex and other referenced documents, including other second generation Eurocodes, as an interdependent suite of documents.

While the use of provisions in this standard in conjunction with first generation Eurocodes is not precluded, it should be undertaken with care and should only be done when users are satisfied that it will not result in a lower level of reliability than the minimum level set in the first generation Eurocodes and associated UK National Annexes.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2025
Published by BSI Standards Limited 2025

ISBN 978 0 539 24167 9

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

ICS 91.010.30; 91.080.20

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2025.

Amendments/corrigenda issued since publication

Date

Text affected

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

October 2025

ICS 91.010.30; 91.080.20

English Version

Eurocode 5 - Design of timber structures - Part 3: Execution

Eurocode 5 - Calcul des structures en bois - Partie 3 :
Exécution

Eurocode 5 - Bemessung und Konstruktion von
Holzbauten - Teil 3: Ausführung

This European Standard was approved by CEN on 20 July 2025.

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, 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 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

Contents		Page
European foreword		6
Introduction		7
1	Scope	10
1.1	Scope of EN 1995-3	10
1.2	Assumptions	10
2	Normative references	11
3	Terms, definitions, symbols and abbreviations	11
3.1	Terms and definitions	11
3.2	Symbols and abbreviations	13
3.2.1	Latin upper-case letters.....	13
3.2.2	Latin lower-case letters	13
3.2.3	Greek upper-case letters	14
3.2.4	Greek lower-case letters	14
3.2.5	Abbreviations.....	14
4	Documentation and inspection	15
4.1	General.....	15
4.2	Execution specification.....	15
4.3	Execution quality assurance	16
4.4	Inspection	16
4.5	Sample size, acceptance criteria and documentation of quality control	17
4.6	Action in the case of damage or deviations from the execution specification.....	17
5	Workmanship	17
5.1	General.....	17
5.2	Erection plan	18
5.3	Moisture control plan.....	18
5.4	Connections.....	18
5.4.1	General.....	18
5.4.2	Screwed connections and connections with rods with wood-screw thread	18
5.4.3	Other connections.....	19
5.5	Bonded connections.....	19
6	Geometrical deviations	19
6.1	General.....	19
6.1.1	Measuring geometrical deviations	19
6.1.2	Dimension adjustment for moisture content	20
6.1.3	Deviation limits for geometrical deviations	20
6.2	Deviation limits for cross section dimensions	20
6.3	Deviation limits for cutting and machining.....	20
6.4	Hole diameters for dowel-type fasteners.....	23
6.4.1	General.....	23
6.4.2	Hole diameters in metal	23
6.4.3	Hole diameters in wood.....	24
6.5	Offset of holes	24
6.6	Location of fasteners and shear connectors.....	24
6.6.1	Timber-to-timber and steel-to-timber connections	24

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

6.6.2	Panel-to-timber connections.....	26
6.7	Penetration of dowel-type fasteners.....	27
6.8	Prefabricated wall, floor and roof assemblies	29
6.9	Erected members and structures	29
6.10	Supports, anchorages and bearings.....	29
6.11	Carpentry joints	30
Annex A (informative)	Inspection levels, sample size, acceptance criteria and documentation of quality control.....	31
A.1	Use of this annex	31
A.2	Scope and field of application	31
A.3	Inspection levels	31
A.4	Sample size, acceptance criteria and documentation	31
A.5	Documentation of quality control	33
Annex B (normative)	Bonding.....	34
B.1	Use of this annex	34
B.2	Scope and field of application	34
B.3	General rules.....	34
B.4	Competency	35
B.5	Equipment and premises.....	35
B.6	Materials.....	36
B.6.1	Timber products for surface bonding.....	36
B.6.2	Screws and washers for surface bonding.....	36
B.6.3	Adhesives.....	36
B.7	Bonded-in rods	37
B.7.1	Pre-drilled holes	37
B.7.2	Rods.....	37
B.7.3	Bonding process.....	37
B.7.3.1	General	37
B.7.3.2	Procedure (i)	37
B.7.3.3	Procedure (ii).....	38
B.7.3.4	Procedure (iii)	39
B.7.4	Tightening of groups of bonded-in-rods	40
B.8	Bonded-on wood-based panels and laminations.....	40
B.8.1	General	40
B.8.2	Surface preparation.....	40
B.8.3	Bonding process.....	41
B.8.4	Pressing.....	41
B.8.4.1	Hydraulic pressing.....	41

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

B.8.4.2 Screw-press bonding	41
B.9 Measures to ensure contact pressure between two members	44
B.10 Quality control	44
B.10.1 General	44
B.10.2 Documentation	44
B.10.3 Type and frequency of quality control for bonding operations	45
B.10.4 Applications of bonded-in rods	46
Annex C (informative) Timber foundation piles	48
C.1 Use of this annex	48
C.2 Scope and field of application	48
C.3 Data recording	48
C.4 Execution rules	48
Annex D (normative) Carpentry joints – deviation limits	50
D.1 Use of this annex	50
D.2 Scope and field of application	50
D.3 Dovetail connections	50
D.4 Single step connections	50
D.5 Mortise and tenon joints	50
Annex E (informative) Execution rules for tie-down connections for structures in seismic areas	51
E.1 Use of this annex	51
E.2 Scope and field of application	51
E.3 Number of fasteners at connections	51
E.4 Deviation limits of tie-down to foundations	51
E.5 Tie-down connection at inter-storey	52
Annex F (informative) Expanded tube connections	53
F.1 Use of this annex	53
F.2 Scope and field of application	53
F.3 Introduction	53
F.4 General	53
F.5 Adhesive	54
F.6 Bonding	54
F.7 Holes in DLW	54
F.8 Expansion procedure	55
F.9 Requirements for the dies	55
Annex G (informative) Moisture control plan	57
G.1 Use of this annex	57

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

G.2	Scope and field of application	57
G.3	Content of the Moisture Control Plan	57
	Bibliography	58

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN 1995-3:2025) has been prepared by Technical Committee CEN/TC 250 “Structural Eurocodes”, the secretariat of which is held by BSI. CEN/TC 250 is responsible for all Structural Eurocodes and has been assigned responsibility for structural and geotechnical design matters by CEN.

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 2027, and conflicting national standards shall be withdrawn at the latest by March 2028.

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.

The first generation of EN Eurocodes was published between 2002 and 2007. This document forms part of the second generation of the Eurocodes, which have been prepared under Mandate M/515 issued to CEN by the European Commission and the European Free Trade Association.

The Eurocodes have been drafted to be used in conjunction with relevant execution, material, product and test standards, and to identify requirements for execution, materials, products and testing that are relied upon by the Eurocodes.

The Eurocodes recognize the responsibility of each Member State and have safeguarded their right to determine values related to regulatory safety matters at national level through the use of National Annexes.

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.

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

Introduction

0.1 Introduction to the Eurocodes

The Structural Eurocodes comprise the following standards generally consisting of a number of Parts:

- EN 1990 *Eurocode — Basis of structural and geotechnical design*
- EN 1991 *Eurocode 1 — Actions on structures*
- EN 1992 *Eurocode 2 — Design of concrete structures*
- EN 1993 *Eurocode 3 — Design of steel structures*
- EN 1994 *Eurocode 4 — Design of composite steel and concrete structures*
- EN 1995 *Eurocode 5 — Design of timber structures*
- EN 1996 *Eurocode 6 — Design of masonry structures*
- EN 1997 *Eurocode 7 — Geotechnical design*
- EN 1998 *Eurocode 8 — Design of structures for earthquake resistance*
- EN 1999 *Eurocode 9 — Design of aluminium structures*
- EN 19100 *Eurocode 10 — Design of glass structures*
- New parts are under development, e.g. Eurocode for design of fibre-polymer composite structures and design of tensioned membrane structures

The Eurocodes are intended for use by designers, clients, manufacturers, constructors, relevant authorities (in exercising their duties in accordance with national or international regulations), educators, software developers, and committees drafting standards for related product, testing and execution standards.

NOTE Some aspects of design are most appropriately specified by relevant authorities or, where not specified, can be agreed on a project-specific basis between relevant parties such as designers and clients. The Eurocodes identify such aspects making explicit reference to relevant authorities and relevant parties.

0.2 Introduction to EN 1995 (all parts)

EN 1995 (all parts) applies to the design of timber structures and gives specific design rules for buildings and civil engineering timber works.

EN 1995 is subdivided in various parts:

EN 1995-1 in itself does not exist as a physical document but comprises the following three separate documents, the basic part being EN 1995-1-1:

- EN 1995-1-1 *Eurocode 5 — Design of timber structures — Part 1-1: General rules and rules for buildings*
- EN 1995-1-2 *Eurocode 5 — Design of timber structures — Part 1-2: Structural fire design*

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

- CEN/TS 19103 *Eurocode 5 — Design of timber structures — Structural design of timber-concrete composite structures – Common rules and rules for buildings* (foreseen to be published as EN 1995-1-3)
- EN 1995-2 *Eurocode 5 — Design of timber structures — Part 2: Bridges*
- EN 1995-3 *Eurocode 5 — Design of timber structures — Part 3: Execution*

EN 1995-2 “Bridges” refers to the common rules in EN 1995-1-1. The Clauses in EN 1995-2 supplement, modify or supersede them, where relevant.

EN 1995-3 “Execution” refers to the common rules in EN 1995-1-1. The Clauses in EN 1995-3 supplement the Clauses in EN 1995 (all parts).

0.3 Introduction to EN 1995-3

EN 1995-3 applies to the execution of timber structures to achieve the intended level of safety and serviceability during their design service life, as given by EN 1990 and EN 1995.

This document has the following main functions:

- to transfer the requirements set during design to the constructor, i.e. to be a link between design and execution;
- to give advice for supervision and inspection of timber structures.

To achieve these functions, a set of documents and drawings giving all the information required for the execution of the work needs to be available. This set of documents is referred to as the “execution specification” in this document. Further items need to be specified in the execution specification taking into account any relevant national legislation.

0.4 Verbal forms used in the Eurocodes

The verb “shall” expresses a requirement strictly to be followed and from which no deviation is permitted in order to comply with the Eurocodes.

The verb “should” expresses a highly recommended choice or course of action. Subject to national regulation and/or any relevant contractual provisions, alternative approaches could be used/adopted where technically justified.

The verb “may” expresses a course of action permissible within the limits of the Eurocodes.

The verb “can” expresses possibility and capability; it is used for statements of fact and clarification of concepts.

0.5 National Annex for EN 1995-3

National choice is allowed in this document where explicitly stated within notes. National choice includes the selection of values for Nationally Determined Parameters (NDPs).

The national standard implementing EN 1995-3 can have a National Annex containing all national choices to be used for the design of buildings and civil engineering works to be constructed in the relevant country.

When no national choice is given, the default choice given in this document is to be used.

When no national choice is made and no default is given in this document, the choice can be specified by a relevant authority or, where not specified, agreed for a specific project by appropriate parties.

National choice is allowed in EN 1995-3 through notes to the following clauses:

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

5.3(1)	6.3(1)	6.3(2)	6.6.1(4)
6.6.2(2)	6.8(1)	B.4	B.10.3(1)
B.10.4(2)			

National choice is allowed in EN 1995-3 on the application of the following informative annexes:

Annex A	Annex C	Annex E	Annex F
Annex G			

The National Annex can contain, directly or by reference, non-contradictory complementary information for ease of implementation, provided it does not alter any provisions of the Eurocodes.

This is a preview of BS EN 1995-3:2025. [Click here to purchase the full version from the ANSI store.](#)

1 Scope

1.1 Scope of EN 1995-3

(1) This document gives minimum requirements for execution of timber structures (buildings and bridges) designed in accordance with EN 1995 (all parts) to ensure that what is built meets the requirements for mechanical resistance, serviceability, durability, and fire performance.

(2) This document gives guidance on moisture control during transport to the building site, storage on site, handling on site and erection.

(3) This document gives guidance on workmanship and deviation limits during execution.

(4) This document assumes that there is an execution specification which states all the specific requirements relevant for the execution of a particular structure.

(5) For products covered by a European technical product specification, this document only covers those aspects of fabrication such as cutting, machining and drilling after placement of the product on the market.

(6) This document does not cover:

- a) parts which are not designed according to EN 1995;
- b) temporary works (such as formwork, scaffolding, propping, shoring, etc.);
- c) specification, production and conformity of timber members in accordance with European technical product specifications;
- d) deviation limits for other properties than mechanical resistance, serviceability, durability and fire performance;
- e) contractual aspects, responsibilities of the various parties, competency requirements or the degree of independence of the personnel undertaking the inspection;
- f) health and safety requirements during execution.

1.2 Assumptions

(1) It is assumed that all relevant provisions of EN 1995 are complied with.

(2) It is recognized in this document that areas such as detailed requirements for competence of personnel, and details related to Quality Management are within the competence of the CEN Member States.

(3) Before the execution begins on a part of the structure, it is assumed that the following are available on site:

- the drawings and specification of that part;
- the execution specification.

(4) Before the start of the execution, it is assumed that the execution specification has been checked for completeness.

(5) It is assumed that previous work (such as foundations) has been inspected and that any work which needs to be done due to deviations from the execution specification has been carried out.