
**Evrokod 4 - Projektiranje sovprežnih konstrukcij iz jekla in betona - 1-2. del:
Projektiranje konstrukcij za požarno varnost**

Eurocode 4 - Design of composite steel and concrete structures - Part 1-2: Structural fire design

Eurocode 4 - Bemessung und Konstruktion von Verbundtragwerken aus Stahl und Beton - Teil 1-2: Tragwerksbemessung für den Brandfall

Eurocode 4 - Calcul des structures mixtes acier-béton - Partie 1-2 : Calcul du comportement au feu

Ta slovenski standard je istoveten z: EN 1994-1-2:2026/prA1

ICS:

13.220.50	Požarna odpornost gradbenih materialov in elementov	Fire-resistance of building materials and elements
91.010.30	Tehnični vidiki	Technical aspects
91.080.13	Jeklene konstrukcije	Steel structures
91.080.40	Betonske konstrukcije	Concrete structures

SIST EN 1994-1-2:2026/oprA1:2026 **en,fr,de**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 1994-1-2:2026
prA1

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ICS

English Version

Eurocode 4 - Design of composite steel and concrete structures - Part 1-2: Structural fire design

Eurocode 4 - Calcul des structures mixtes acier-béton -
Partie 1-2 : Calcul du comportement au feu

Eurocode 4 - Bemessung und Konstruktion von
Verbundtragwerken aus Stahl und Beton - Teil 1-2:
Tragwerksbemessung für den Brandfall

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 250.

This draft amendment A1, if approved, will modify the European Standard EN 1994-1-2:2026. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 1994-1-2:2026/prA1:2026) 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 document is currently submitted to the CEN Enquiry

This document will supersede EN 1994-1-2:2026.

NOTE Some modifications are purely editorial corrections to improve the quality of the document and these will not be tagged in the consolidated publication, as noted after the modification.

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 recognise 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.

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1 Modification to the Introduction

0.5 Add “Annex J” to the list of informative annexes in the paragraph: National choice is allowed in EN 1994-1-2 on the application of the following informative annexes, in alphabetical order.

2 Modification to Clause 1, “Scope”

1.1 Add a new paragraph (2): “This document applies to steel-concrete composite structures required to fulfil a loadbearing function, separating function, insulation function or all of them.”

1.1 Add a new paragraph (3): “This document gives principles and application rules for the design of structures for specified requirements in respect of the aforementioned functions and the levels of performance.”

1.1 Add a new paragraph (5): “In this document, carbon steel is meant when the term steel is used. Stainless steel is not addressed.”

1.1 Renumber paragraph (2) to paragraph (4).

1.2(1) Replace “The assumptions of EN 1990 apply, along with:

with

“In addition to the general assumptions of EN 1990-1, the following assumptions apply:” and renumber this paragraph to paragraph (2).

1.2 Add a new paragraph (1): “This document is intended to be used in conjunction with EN 1090-1, EN 1991 (all parts) and EN 1994-1-1.”

3 Modification to Clause 3, “Terms and definitions”

3.2.1.2 (after correction of numbering) Add the following latin lower case letters in alphanumerical order:

“

$k_{E,cooling}$ reduction factor for the slope of the linear elastic range during the cooling phase of a physically based fire scenario;

$k_{E,heating}$ reduction factor for the slope of the linear elastic range during the heating phase of a physically based fire scenario;

$k_{p,cooling}$ reduction factor for the proportional limit during the cooling phase of a physically based fire scenario;

$k_{p,heating}$ reduction factor for the proportional limit during the heating phase of a physically based fire scenario;

$k_{p,q}$ reduction factor for the proportional limit at the steel temperature θ_a reached at time t ;

$k_{y,cooling}$ reduction factor the yield strength during the cooling phase of a physically based fire scenario;

$k_{y,heating}$ reduction factor the yield strength during the heating phase of a physically based fire scenario;

“

3.2.11 (after correction of numbering) Add a new section 3.2.11 for additional symbols used in Annex J of EN 1994-1-2, as follows:

“

3.2.11 Additional symbols used in Annex J of EN 1994-1-2

3.2.11.1 Latin lower-case letters

a_θ coefficient for modification of the temperature of the bottom flange

3.2.11.2 Greek upper-case letters

Φ_{void} factor for assessing gas temperature inside the voids formed between the top side of the steel section and the profiled steel sheeting

3.2.11.3 Greek lower-case letters

θ_1 temperature of the bottom flange assuming that the section is protected on the whole perimeter

$\theta_{1,m}$ modified temperature of the bottom flange

θ_2 temperature of the top flange of the steel section partially covered by the profiled steel sheeting of the composite steel and concrete slab

“

4 Modification to Clause 4, “Basis of design”

4.1(1) Delete the whole clause.

4.2(2) Delete the whole clause.

4.2(3) Delete the whole clause.

4.5(1) Replace “Note 1” with “NOTE The value of $\gamma_{M,fi}$ is 1,0 unless the National Annex gives a different value.”

4.6(4) Replace with “If not specified in the relevant clauses, the verification methods given in this document may be applied for all types of fire exposure.”

4.6(5) Replace “(2)” with “4.6(2)” to read: “The following design methods may be used in order to satisfy 4.6 (2)”.

4.6(5) In the second bullet, delete “and” to read: “use of simplified design methods for specific types of members, see Clause 7;”.

4.7(2) Replace “6.3.2(4) of EN 1991-1-2:2024” with “EN 1991-1-2:2024, 6.3.2(4)”.

4.8(4) Replace “(1)” with “4.8(1)” to read: “As an alternative to 4.8(1), the reactions at supports...”.

5 Modification to Clause 5, “Material properties”

5.3.1.1(1), Formula (5.27) Add symbol “ $\leq$ ” for the formula to read:

“

$$860\text{ °C} < \theta_a \leq 1\,200\text{ °C} \quad (5.27)$$