



**SLOVENSKI STANDARD**  
**oSIST prEN 1991-1-6:2024**  
**01-junij-2024**

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**Evrokod 1 - Vplivi na konstrukcije - 1-6. del: Vplivi med gradnjo**

Eurocode 1 - Actions on structures - Part 1-6: Actions during execution

Eurocode 1 - Einwirkungen auf Tragwerke - Teil 1-6 : Einwirkungen während der Bauausführung

Eurocode 1 - Actions sur les structures - Partie 1-6 : Actions en cours d'exécution

**Ta slovenski standard je istoveten z: prEN 1991-1-6**

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**ICS:**

91.010.30

Tehnični vidiki

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

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English Version

## Eurocode 1 - Actions on structures - Part 1-6: Actions during execution

Eurocode 1 - Actions sur les structures - Partie 1-6 :  
Actions en cours d'exécution

Eurocode 1 - Einwirkungen auf Tragwerke - Teil 1-6 :  
Allgemeine Einwirkungen - Einwirkungen während der  
Bauausführung

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

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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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.

**Warning** : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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**prEN 1991-1-6:2024 (E)****European foreword**

This document (prEN 1991-1-6:2024) 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 CEN Enquiry.

This document will supersede EN 1991-1-6:2005.

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.

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## 0 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 structure*
- 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*
- New Eurocodes under development, e.g. Eurocode for design of structural glass

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 1991 (all parts)

EN 1991 specifies actions for the structural design of buildings, bridges and other civil engineering works, or parts thereof, including temporary structures, in conjunction with EN 1990 and the other Eurocodes.

EN 1991 does not cover the specific requirements of actions for seismic design. Provisions related to such requirements are given in EN 1998 (all parts), which complement and are consistent with EN 1991.

EN 1991 is also applicable to existing structures for their:

- structural assessment,
- strengthening or repair,
- change of use.

NOTE 1 In these cases additional or amended provisions can be necessary.

**prEN 1991-1-6:2024 (E)**

EN 1991 is applicable for the design of structures where materials or actions outside the scope of the other Eurocodes are involved.

NOTE 2 In this case additional or amended provisions can be necessary.

EN 1991 is subdivided in various parts:

- EN 1991-1-1, *Eurocode 1 — Actions on structures — Part 1-1: Specific weight of materials, self-weight of construction works and imposed loads for buildings*
- EN 1991-1-2, *Eurocode 1 — Actions on structures — Part 1-2: Actions on structures exposed to fire*
- EN 1991-1-3, *Eurocode 1 — Actions on structures — Part 1-3: Snow Loads*
- EN 1991-1-4, *Eurocode 1 — Actions on structures — Part 1-4: Wind Actions*
- EN 1991-1-5, *Eurocode 1 — Actions on structures — Part 1-5: Thermal Actions*
- EN 1991-1-6, *Eurocode 1 — Actions on structures — Part 1-6: Actions during execution*
- EN 1991-1-7, *Eurocode 1 — Actions on structures — Part 1-7: Accidental actions*
- EN 1991-1-8, *Eurocode 1 — Actions on structures — Part 1-8: Actions from waves and currents on coastal structures*
- EN 1991-1-9, *Eurocode 1 — Actions on structures — Part 1-9: Atmospheric icing*
- EN 1991-2, *Eurocode 1 — Actions on structures — Part 2: Traffic loads on bridges and other civil engineering works*
- EN 1991-3, *Eurocode 1 — Actions on structures — Part 3: Actions induced by cranes and machines*
- EN 1991-4, *Eurocode 1 — Actions on structures — Part 4: Silos and tanks*

**0.3 Introduction to prEN 1991-1-6**

prEN 1991-1-6 provides guidance and general rules on the determination of actions relevant for the design of the execution of buildings and other civil engineering works, including geotechnical structures.

prEN 1991-1-6 is intended to be used with EN 1990, the other Parts of EN 1991, and EN 1992 to EN 1999 (all parts) for the design of structures.

prEN 1991-1-6 provides complementary guidance on the application of other Parts of EN 1991 during execution.



#### 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 prEN 1991-1-6

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

The national standard implementing prEN 1991-1-6 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 standard is to be used.

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

National choice is allowed in prEN 1991-1-6 through notes to the following clauses:

6.1(3)	6.2.1(1)	6.2.2(1)	7.4(1)
B.5(2)	B.7(2)		

National choice is allowed in prEN 1991-1-6 on the application of the following informative annexes:

None

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.

## prEN 1991-1-6:2024 (E)

### 1 Scope

#### 1.1 Scope of prEN 1991-1-6

(1) prEN 1991-1-6 provides guidance and general rules on the determination of actions relevant for the design of buildings and civil engineering works, including geotechnical structures, for their execution stage.

NOTE Actions for design during execution include those that only arise from execution activities and act during execution, termed construction actions (for example personnel and hand tools, auxiliary structures, equipment and elements used during execution), and others that are present during the service life of the completed structure (for example self-weight, wind, etc.) but which can act differently and/or have different values during execution.

(2) prEN 1991-1-6 provides guidance and general rules for the determination of actions for the design of auxiliary structures, elements and equipment used during execution in case they are designed to the Eurocodes and not to other European Standards.

NOTE Other European Standards (e.g. EN 12810, EN 12811, EN 12812) provide specific rules for certain types of auxiliary structures, equipment and elements used during execution.

(3) prEN 1991-1-6 gives rules for buildings and bridges during execution to supplement the provisions in EN 1990.

NOTE For combination rules for execution, see EN 1990.

#### 1.2 Assumptions

(1) The general assumptions given in EN 1990 apply.

(2) The application of this document follows the limit state principle and is based on the partial factor method, unless explicitly prescribed differently.

(3) The verification of buildings and civil engineering structures in transient design situations is undertaken in accordance with the Eurocodes, accounting for the interaction with any auxiliary structures, elements and/or equipment.

(4) When using European product standards covering auxiliary structures, equipment and elements used during execution, it is assumed that the design basis, design requirements and, if provided, the safety and operational design limits specified in these product standards are taken into account.

(5) Adequate planning, documentation, communication, control and supervision are provided during execution, involving all relevant parties.

NOTE Execution of a structure can involve interaction between several parties from diverse engineering fields, responsible for the design, fabrication, transportation and execution of different subsystems used during the execution of a structure.

## 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.

NOTE See the Bibliography for a list of other documents cited that are not normative references, including those referenced as recommendations (i.e. in 'should' clauses), permissions ('may' clauses), possibilities ('can' clauses), and in notes.

EN 1990, *Eurocode — Basis of structural and geotechnical design*

EN 1991-1-1, *Eurocode 1 — Actions on structures — Part 1-1: Specific weight of materials, self-weight of construction works and imposed loads on buildings*

EN 1991-1-3, *Eurocode 1 — Actions on structures — Part 1-3: Snow loads*

EN 1991-1-4, *Eurocode 1 — Actions on structures — Part 1-4: Wind actions*

EN 1991-1-5, *Eurocode 1 — Actions on structures — Part 1-5: Thermal actions*

prEN 1991-1-8, *Eurocode 1 — Actions on structures — Part 1-8: Actions from waves and currents on coastal structures*

prEN 1991-1-9, *Eurocode 1 — Actions on structures — Part 1-9: Atmospheric icing*

EN 1991-2, *Eurocode 1 — Actions on structures — Part 2: Traffic loads on bridges and other civil engineering works*

EN 1991-3, *Eurocode 1 — Actions on structures — Part 3: Actions induced by cranes and machinery*

EN 1992-1-1, *Eurocode 2 — Design of concrete structures — Part 1-1: General rules, rules for buildings, bridges and civil engineering structures*

EN 1993-1-1, *Eurocode 3 — Design of steel structures — Part 1-1: General rules and rules for buildings*

EN 1993-2, *Eurocode 3 — Design of steel structures — Part 2: Steel bridges*

EN 1994-1-1, *Eurocode 4 — Design of composite steel and concrete structures — Part 1-1: General rules and rules for buildings*

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

EN 1997 (all parts), *Eurocode 7 — Geotechnical design*

EN 1998 (all parts), *Eurocode 8 — Design of structures for earthquake resistance*

EN 1999-1-1, *Eurocode 9 — Design of aluminum structures — Part 1-1: General rules*