

## საქართველოს სტანდარტი

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ევროკოდი 2- ბეტონის კონსტრუქციების დაპროექტება - ნაწილი 1-1: ზოგადი წესები და წესები შენობებისთვის, ხიდებისთვის და სამოქალაქო საინჟინრო ნაგებობებისთვის

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3 ნაცვლად ენ 1992-1-1:2004, ენ 1992-2:2005, ენ 1992-3:2006

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## European foreword

This document (EN 1992-1-1:2023) 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of an identical text or by endorsement, at the latest by September 2027 and conflicting national standards shall be withdrawn at the latest by March 2028.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.

This document supersedes EN 1992-1-1:2004, EN 1992-2:2005 and EN 1992-3:2006 and their amendments and corrigenda.

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.

The main changes compared to the previous edition are listed below:

- the scope of EN 1992-1-1 was extended to higher material strengths - for concrete up to class C100, for reinforcing steel to B700, for prestressing steel strand to Y2060 – and covering stainless steel;
- a new performance-based method for durability design of concrete structures was introduced;
- ULS design models were updated for confined concrete, shear and punching shear without and with shear reinforcement, strut-and-tie modelling, and size effect considered where relevant;
- provisions for anchorage and laps of reinforcing steel were updated to consider non-linear bond characteristics and size effect, and new anchorage methods for U-bar loops, headed bars and post-installed bars were integrated;
- an informative annex provides statistical data of material and dimensional properties as basis for the partial factors;
- creep and shrinkage models were updated and unified for normal strength and high strength — concretes;
- assumed material characteristics not directly used in design are listed in Annex C as basis for specifications and interface to product standards;
- a new informative annex gives provisions for early-age thermo-mechanical design;
- a new informative annex gives requirements for use of non-linear finite element methods;

- informative annexes provide guidance for the assessment of existing structures, for strengthening with FRP materials, for steel fibre reinforced concrete structures, for recycled aggregates concrete structures, for embedded FRP reinforcement, and for minimum reinforcement for crack control and simplified control of cracking.

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 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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