DIN EN 1999-1-1

DIN

ICS 91.010.30; 91.080.10

Supersedes
DIN EN 1999-1-1:2010-05

Eurocode 9: Design of aluminium structures – Part 1-1: General structural rules; English version EN 1999-1-1:2007 + A1:2009 + A2:2013, English translation of DIN EN 1999-1-1:2014-03

Eurocode 9: Bemessung und Konstruktion von Aluminiumtragwerken –
Teil 1-1: Allgemeine Bemessungsregeln;
Englische Fassung EN 1999-1-1:2007 + A1:2009 + A2:2013,
Englische Übersetzung von DIN EN 1999-1-1:2014-03

Eurocode 9: Calcul des structures en aluminium –
Partie 1-1: Règles générales;
Version anglaise EN 1999-1-1:2007 + A1:2009 + A2:2013,
Traduction anglaise de DIN EN 1999-1-1:2014-03

Document comprises 226 pages

Translation by DIN-Sprachendienst.
In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN 1999-1-1:2007 + A1:2009 + A2:2013) has been prepared by Technical Committee CEN/TC 250 “Structural Eurocodes” (Secretariat: BSI, United Kingdom).

The responsible German body involved in its preparation was the *Normenausschuss Bauwesen* (Building and Civil Engineering Standards Committee), Working Committee NA 005-08-07 AA *Aluminiumkonstruktionen (SpA zu CEN/TC 250/SC 9 + CEN/TC 135).*

This standard includes Amendment A1:2009 approved by CEN on 12 March 2009 and Amendment A2:2013 approved by CEN on 8 August 2013.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ⟦A1⟩ ⟨A1⟧ and ⟦A2⟩ ⟨A2⟧.

Amendments

This standard differs from DIN EN 1999-1-1:2010-05 as follows:

a) Amendment A2:2013 has been incorporated;

b) the standard has been editorially revised.

Previous editions

DIN 4113-1: 1980-05, DIN 4113: 1958x-02
DIN 4113-1/A1: 2002-09
DIN 4113-1/A1 Corrigendum 1: 2008-12
DIN 4113-2: 2002-09, DIN 4113: 1958-02
DIN 4113-2 Corrigendum 1: 2008-12
DIN V 4113-3: 2003-11
DIN V 4113-3 Corrigendum 1: 2008-12
DIN V ENV 1999-1-1: 2000-10
DIN EN 1999-1-1: 2010-05

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1999-1-1

March 2007

+ A1 July 2009

+ A2 December 2013

ICS 91.010.30 ; 91.080.10

Supersedes ENV 1999-1-1:1998

English Version

Eurocode 9: Design of aluminium structures – Part 1-1: General structural rules

Eurocode 9: Calcul des structures en aluminium – Partie 1-1: Règles générales

Eurocode 9: Bemessung und Konstruktion von Aluminiumtragwerken – Teil 1-1: Allgemeine Bemessungsregeln

EN 1999-1-1:2007 was approved by CEN on 2006-09-18, Amendment A1:2009 on 2009-03-12 and Amendment A2:2013 on 2013-08-08.

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

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Ref. No. EN 1999-1-1:2007+A1:2009+A2:2013 E

Contents

Page

Foreword to EN 1999-1-1:2007

This European Standard (EN 1999-1-1:2007) has been prepared by Technical Committee CEN/TC 250 “Structural Eurocodes”, the secretariat of which is held by BSI.

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 2007, and conflicting national standards shall be withdrawn at the latest by March 2010.

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A1 Foreword to EN 1999-1-1:2007/A1:2009

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A2 Foreword to EN 1991-1-1:2007/A2:2013

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Background of the Eurocode programme

In 1975, the Commission of the European Community decided on an action programme in the field of construction, based on article 95 of the Treaty. The objective of the programme was the elimination of technical obstacles to trade and the harmonisation of technical specifications.

Within this action programme, the Commission took the initiative to establish a set of harmonised technical rules for the design of construction works, which in a first stage would serve as an alternative to the national rules in force in the Member States and, ultimately, would replace them.

For fifteen years, the Commission, with the help of a Steering Committee with Representatives of Member States, conducted the development of the Eurocodes programme, which led to the first generation of European codes in the 1980s.

In 1989, the Commission and the Member States of the EU and EFTA decided, on the basis of an agreement[1] between the Commission and CEN, to transfer the preparation and the publication of the Eurocodes to the CEN through a series of Mandates, in order to provide them with a future status of European Standard (EN). This links *de facto* the Eurocodes with the provisions of all the Council's Directives and/or Commission's Decisions dealing with European standards (e.g. the Council Directive 89/106/EEC on construction products – CPD – and Council Directives 93/37/EEC, 92/50/EEC and 89/440/EEC on public works and services and equivalent EFTA Directives initiated in pursuit of setting up the internal market).

The Structural Eurocode programme comprises the following standards generally consisting of a number of Parts:

EN 1990 Eurocode 0: Basis of structural 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

Eurocode standards recognise the responsibility of regulatory authorities in each Member State and have safeguarded their right to determine values related to regulatory safety matters at national level where these continue to vary from State to State.

Status and field of application of Eurocodes

The Member States of the EU and EFTA recognise that Eurocodes serve as reference documents for the following purposes:

- as a means to prove compliance of building and civil engineering works with the essential requirements of Council Directive 89/106/EEC, particularly Essential Requirement N°1 - Mechanical resistance and stability - and Essential Requirement N°2 - Safety in case of fire;
- as a basis for specifying contracts for construction works and related engineering services;
- as a framework for drawing up harmonised technical specifications for construction products (ENs and ETAs)

[1] Agreement between the Commission of the European Communities and the European Committee for Standardisation (CEN) concerning the work on EUROCODES for the design of building and civil engineering works (BC/CEN/03/89).