
Smernice za izvajanje EN 1090-1:2009+A1:2011: Izvedba jeklenih in aluminijastih konstrukcij - 1. del: Zahteve za ugotavljanje skladnosti sestavnih delov konstrukcij

Guidelines on implementing EN 1090-1:2009+A1:2011, Execution of steel structures and aluminium structures - Part 1: Requirements for conformity assessment of structural components

Leitfaden für die Umsetzung von EN 1090-1:2009+A1:2011/Ausführung von Stahlbetonwerken und Aluminiumtragwerken - Teil 1: Konformitätsnachweisverfahren für tragende Bauteile

Lignes directrices pour la mise en œuvre de l'EN 1090-1:2009+A1:2011, Exécution des structures en acier et des structures en aluminium - Partie 1 : Exigences pour l'évaluation de la conformité des éléments structuraux

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Lignes directrices pour l'application de l'EN 1090-1:2009+A1:2011, Exécution des structures en acier et des structures en aluminium - Partie 1: Exigences pour l'évaluation de la conformité des éléments structuraux

Leitfaden für die Umsetzung von EN 1090-1:2009+A1:2011, Ausführung von Stahlbetonwerken und Aluminiumtragwerken - Teil 1: Konformitätsnachweisverfahren für tragende Bauteile

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European foreword

This document (CEN/TR 17052:2017) has been prepared by Technical Committee CEN/TC 135 “Execution of steel structures and aluminium structures”, the secretariat of which is held by SN.

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CEN/TR 17052:2017 (E)**Introduction**

The scope of the standard EN 1090-1:2009+A1:2011 “Execution of steel structures and aluminium structures: Part 1: Requirements for conformity assessment of structural components” is very broad and prompted the European Commission to publish on their website under the category “Frequently Asked Questions (FAQ) on the Constructions Products Regulation” a set of conditions for identifying when a steel or aluminium product falls within its scope and an indicative, non-exhaustive list of products that are not covered by the scope of EN 1090-1:2009+A1:2011.

This document aims to clarify in addition to the answers given on the European Commission’s FAQ website the scope of EN 1090-1:2009+A1:2011.

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1 Scope

The scope of EN 1090-1:2009+A1:2011 states that the standard covers structural components and kits which are referred to as structural construction products in this document. This document gives information that clarifies when a structural construction product is covered by the scope of EN 1090-1:2009+A1:2011 and lists examples of products covered and not covered.

2 Normative references

The following documents, in whole or in part, are referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1090-1:2009+A1:2011, *Execution of steel structures and aluminium structures - Part 1: Requirements for conformity assessment of structural components*

EN 1090-2:2008+A1:2011, *Execution of steel structures and aluminium structures - Part 2: Technical requirements for steel structures*

EN 1090-3:2008, *Execution of steel structures and aluminium structures - Part 3: Technical requirements for aluminium structures*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

Harmonized Standard for construction products (hEN)

standard adopted by one of the European standardisation bodies listed in Annex I to Directive 98/34/EC, on the basis of a request issued by the Commission, in accordance with Article 6 of that Directive, and which has been cited in the Official Journal of the European Union (OJEU) as a harmonized standard under the Construction Products Regulation (EU) 305/2011/EC

3.2

European Assessment Document (EAD)

document on the basis of the EU Construction Products Regulation EU 305/2011 adopted by the organisation of Technical Assessment Bodies for the purposes of issuing European Technical Assessments

3.3

European Technical Assessment (ETA)

documented assessment of the performance of a construction product in relation to its essential characteristics, in accordance with the respective European Assessment Document

3.4

European Technical Approval (ETA)

favourable technical assessment of the fitness for use of a product for an intended use on the basis of the Construction Products Directive (89/106/EEC), based on fulfilment of the essential requirements for construction works for which the product is used

Note 1 to entry: According to EU 305/2011/EC, article 66, 4) European technical approvals may be used as European Technical Assessments throughout the period of validity of those approvals.

CEN/TR 17052:2017 (E)**3.5****European Technical Approval Guidelines (ETAG)**

guideline for the issuing of a European Technical Approval on the basis of the EU Construction Products Directive (89/106/EEC)

Note 1 to entry: According to EU 305/2011/EC, article 66, 3) ETAGs may be used as EADs.

4 Conditions necessary for construction products to be covered by the scope of EN 1090-1

Construction products are covered by the scope of EN 1090-1:2009+A1:2011 when all the following conditions are satisfied:

Condition 1: The product fulfils the requirements of EN 1090-2 or EN 1090-3

Condition 2: The product is a structural construction product within the meaning of the Construction Products Regulation (EU) 305/2011 which means:

Condition 2a: The product is intended to be incorporated in a permanent manner in construction works (buildings or civil engineering works), and

Condition 2b: The product has a structural function in relation to the construction work (i.e. its failure will affect the satisfaction of Basic Requirement 1 and subclause a) of Basic Requirement 2 as detailed in 5.3.2 and Annex I of the Construction Products Regulation (EU) 305/2011/EC).

Condition 3: This European Standard does not apply to construction products covered by another European technical specification (e.g. a specific harmonized standard (hEN) or a European Technical Approval or European Technical Assessment (ETA)).

5 Clarification

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5.1 General

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In this clause further clarification of the conditions of Clause 4 is given.

Structural construction products are part of a loadbearing construction which is an organized assembly of connected parts designed to provide mechanical resistance and stability to the works. A way of identifying a structural construction product is to ask the question: "*If the product is removed does its removal affect the strength and stability of the structure or a part of the structure?*". If the answer to this question is yes then the product is a structural construction product, see also EN 1090-1:2009+A1:2011, 3.1.9.

For indicative, non-exhaustive [lists of products](#) covered and not covered by the scope of EN 1090-1:2009+A1:2011, see Annex A and Annex B of this document.

5.2 Condition 1 – The product fulfils the requirements of EN 1090-2 or EN 1090-3

For a product to fall within the scope of EN 1090-1 the processes for its manufacture shall comply with EN 1090-2 or EN 1090-3.

5.3 Condition 2 – The product is a structural construction product within the meaning of the Construction Products Regulation (EU) 305/2011**5.3.1 Condition 2a - The product is intended to be incorporated in a permanent manner in construction works**

a) Incorporated in a permanent manner

Incorporation of a product in a permanent manner in the works means:

- that its removal reduces the performance capabilities of the works and
- that the dismantling or the replacement of the product are operations which involve construction activities.

Typical construction products that are not incorporated in a permanent manner are scaffolding, formwork, falsework and temporary edge protection.

b) Construction works

Construction works means buildings and civil engineering works (as for instance bridges).

Construction works are fixed to the ground. A construction work is to be regarded as “fixed to the ground” when it is directly or indirectly connected to the ground or is supported by the ground. Supported by the ground can be for instance by gravity or via piling.

5.3.2 Condition 2b - The product has a structural function in relation to the construction work

The product shall have a structural function in relation to the construction work (i.e. its failure will affect the satisfaction of Basic Requirement 1 and subclause a) of Basic Requirement 2 as detailed in Annex I of Regulation EU 305/2011).

These requirements are related to the mechanical resistance and stability of the “construction works” including the safety in case of fire.

The requirements are:

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The construction works shall be designed and built in such a way that the loadings that are liable to act on them during their construction and use will not lead to any of the following (see Annex I of the Construction Products Regulation (EU) 305/2011/EC):

- a) Collapse of the whole or part of the work
- b) Major deformations to an inadmissible degree
- c) Damage to other parts of the construction works or to fittings or installed equipment as a result of major deformation of the load-bearing construction;
- d) Damage by an event to an extent disproportionate to the original cause.

In certain cases the construction works shall also be designed and built in such a way that in the event of an outbreak of fire the load-bearing capacity of the construction can be assumed for a specific period of time.

The “load-bearing construction” is a sub-set of the construction works and includes all those construction products that contribute to the strength and stability and to the safety in case of fire of the works. This includes both the main load-bearing elements (e.g. the frame, walls, columns, beams, bracing, connectors, foundations) and the secondary load bearing elements (e.g. structural claddings, purlins, decking).

Basic requirement No. 1 for construction works applies to the load bearing elements covering a wide range of structural construction products. Examples of such products that may form part of the construction work are given in Annex A.

NOTE Some of these elements might also be covered by Basic requirement No. 4 for construction works, which is not addressed in EN 1090-1. Safety in use, in terms of unacceptable risks of accidents or damage in service or operation, is concerned with Basic requirement No. 4 for construction works.