

CEN-CENELEC GUIDE 36

Guidance on the rules for drafting and presentation of candidate harmonized product standards for construction products

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European foreword

This document (CEN-CENELEC Guide 36:2020) has been prepared by CEN-CENELEC BT WG 9 'Strategy for the construction sector'.

This document is intended for use by Technical Committees drafting candidate harmonized European Standards in the Construction Sector.

It gives the rules for the presentation of standards for construction products drafted following a standardization request issued in the framework of Regulation (EU) 305/2011 (CPR).

Other EU Directives/Regulations may also apply to construction products.

Introduction

CEN-CENELEC is involved in the preparation of candidate harmonized European Standards for construction products replying to European Commission standardization requests.

It has been considered necessary to propose rules for the preparation, drafting and presentation of candidate harmonized European Standards for construction products.

Reference should also be made to the CEN Construction web site, which lists many other guidance documents relevant for the drafting work, accessible at: https://www.cen.eu/work/Sectors/Construction/Pages/JIS5.aspx

Other instructions and clarifications including a list of FAQs can be found on the European Commission website at: http://ec.europa.eu/growth/sectors/construction/product-regulation_en

1 Scope

This Guide sets out the rules for the drafting and presentation of candidate harmonized European Standards (hENs) for construction products drafted in the framework of Regulation (EU) 305/2011 (Construction Products Regulation).

This Guide gives rules which are additional to the CEN-CENELEC Internal Regulations — Part 3 (based on ISO/IEC Directives, Part 2) when this is necessary because of the special provisions of harmonized product standards in the construction sector.

This Guide applies to all new candidate hENs and for new Work Items (WIs) revising/amending existent hENs.

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.

CEN-CENELEC Internal Regulations — Part 3:2019, Principles and rules for the structure and drafting of CEN and CENELEC documents (ISO/IEC Directives — Part 2:2018, modified)

TF N 687rev1, Implementation of the Construction Products Regulation (CPR) in harmonized standards - Template for Annex ZA

NOTE Guidance documents can be found in the following link: https://www.cen.eu/work/Sectors/Construction/Pages/JIS5.aspx

3 General principles

This Guide gives the framework to be followed by Technical Committees (TCs) for drafting of a candidate hEN in the framework of the Construction Products Regulation (CPR).

Part 3 of the CEN-CENELEC Internal Regulations shall be used in conjunction with this document when preparing a new candidate hEN, or when revising/amending an existing harmonized European Standard for construction products as stated in the scope of this document.

For each clause of the candidate hENs to be drafted, a number of examples regarding their content are given.

4 Format of a harmonized European Standard for construction products

4.1 Cover page of the candidate hEN

The cover page of a candidate hEN is prepared by CEN-CENELEC Management Centre (CCMC). However, each concerned TC shall decide the title of the candidate hEN which shall be appropriate to its contents.

4.2 Element "Title"

The title page shall be prepared according to Clause 11 of CEN-CENELEC Internal Regulations — Part 3:2019.

The proposed title should not be different from the one given in the standardization request (if available) or TC answer to the mandate prepared by the TC and accepted by the European Commission.

4.3 Element "table of contents"

A "Table of contents" is necessary to make the consultation of the candidate hEN easier.

Clause 6 of CEN-CENELEC Internal Regulations — Part 3:2019 provides guidance on the Organization and subdivision of the standard.

Terms in the "Terms and definitions" clause shall not be listed in the table of contents.

The following lists provides the framework on which a candidate hEN for construction products should be based:

European foreword

Introduction

- 1 Scope
- 2 Normative references
- 3 Terms, definitions, symbols, units and abbreviated terms
- 4 Characteristics
- 5 Testing, assessment and sampling methods
- 6 Assessment and verification of constancy of performance
- 7 Product designation
- 8 Marking, labelling and packaging
- 9 to n Other (if needed)

Annex(es) (normative and or informative) etc.

Annex ZA (exclusively for Regulation (EU) 305/2011), Annex ZB, etc. (for other Directives, if any).

Bibliography

4.4 Element "European foreword"

The foreword shall be prepared according to Clause 12 of CEN-CENELEC Internal Regulations — Part 3:2019.

European foreword example of revised standard

EXAMPLE

This document (EN 450-1:2013) has been prepared by Technical Committee CEN/TC 104 "Concrete and related products", the secretariat of which is held by DIN.

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 February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 450-1:2012.

This document has been prepared under a standardization request given to CEN/CENELEC by the European Commission and the European Free Trade Association.

For relationship with EU Regulation, see informative Annex ZA, which is an integral part of this document.

The main changes with respect to the previous edition are listed below:

- extension of the permissible content of solid co-combustion materials;
- extension of the permissible content of liquid and gaseous co-combustion materials;
- fixed limits for loss on ignition;
- general editorial revision.

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, Turkey and the United Kingdom.

4.5 Element "Introduction"

The introduction, if needed, shall be prepared according to Clause 13 of CEN-CENELEC Internal Regulations — Part 3:2019,

4.6 Clause 1 "Scope"

Following Clause 14 in the IR - Part 3:2019, this is required at the beginning of every candidate hEN, to define the subject of the standard and the aspect(s) covered in an unambiguous way and thereby to indicate the limits of applicability of the standard or particular parts of it.

The scope shall be specific and shall state clearly which product(s), component(s), material(s), form(s), kits (as relevant) are covered, and for which intended use(s), and which are excluded. If later clauses of the candidate hEN limit its scope, these exclusions are to be given under the clause "Scope".

The scope shall be unambiguous and any user shall be able to know, without uncertainty, what is covered and what is not. The scope shall be at least in accordance with the standardization request(s) (if available) or accepted TC answer to the relevant mandate.

Phrases to be avoided are such as "This standard covers products intended generally for external use" or "This standard covers products made mainly from material X". In the first example, the user cannot know whether internal

uses are also covered while, in the second example, the standard would not be based on the performance approach.

In general and thereby in conformity with Clause 14 in IR – Part 3:2019, the clause "Scope" shall clearly identify the intended use of the construction product but shall not contain any normative instructions or product characteristics. Acceptable text could be, for example "These pipes are intended to be used in underground unpressurised sewers". Text to be avoided is, for example "These plastic pipes may be used with metal pipes provided that appropriate joints are provided"; this does not belong to the Scope.

The scope should also, where appropriate, indicate:

- either the location within the works where the construction product is intended to be used (e.g. internal walls, external walls) or should differentiate between different locations. The relevant construction product characteristics may well depend on the location in the work;
- whether recycled materials (other than closed-loop recycling during production) are either covered or excluded, and appropriate provisions should then be included in the body of the standard.

When a hEN is revised, the scope cannot exclude any of the products previously covered, unless:

- they are covered by another standard to be progressed in parallel;
- or excluded by an amendment of the mandate (at least for the harmonized part).

4.7 Clause 2 "Normative references"

The normative references, shall be prepared according to Clause 15 of CEN-CENELEC Internal Regulations — Part 3:2019.

ENs specifying product characteristics for a product shall not contain normative references to quality management system requirements (e.g. EN ISO 9001, ISO 14000 or related series standards) or certification provisions.

TCs should be aware that it is necessary to provide a technical justification on the use of undated normative references and this should be provided in a supporting document.

NOTE At the moment the EC considers that all normative references shall be dated. However, it should be noted the common understanding between CEN and CENELEC, that both dated and undated references can be used in the harmonized European Standards.

4.8 Clause 3 "Terms, definitions, symbols, units and abbreviated terms"

As far as applicable, Clause 3 shall cover terms, definitions, symbols units and abbreviated terms and has to be in accordance with CEN-CENELEC Internal Regulations — Part 3:2019, Clauses 16 and 17. Depending on the actual content of Clause 3 its title needs to be adapted and sub-clauses shall be introduced.

One standard should contain the definitions used by the other standards, which then make reference back to this standard. If it is necessary to repeat definitions, they should be copied word by word from whichever document is considered the reference.

Only definitions used later in the text need to be included.

Definitions may be given:

- in the form of one normative reference to another ISO,IEC,CEN or CENELEC standard dealing with definitions, symbols and abbreviations relating to this field;
- as a list of specialist terms included in the standard. This should make clear that the definitions are limited to the
 use of the terms in the standard.

Definitions shall not include product characteristics. Any restriction leading to the exclusion of certain construction products shall be included in Clause 1 "Scope".

Care should be taken to use terms consistently and to give each term a single meaning. In particular, the terms: parts or works, element, product, kit, unit, material and component have specific meaning and should not be used interchangeably, even if this leads to a word being often repeated.

The use in the body of the candidate hEN of symbols or abbreviations that have not been included in this clause, shall be avoided.

When necessary to use, terms and definitions, which have been defined in the CPR, those terms and definitions shall be used in the candidate hEN with the same meaning.

4.9 Clause 4 "Characteristics"

All the characteristics of the construction products shall be included in this clause, whether related to standardization request or not.

NOTE At the moment, the EC considers that all characteristics in the framework of the Basic Work Requirements need to be included in the hEN (including Annex ZA). However, as long as they are not included in the Standardization Request they cannot be included in the Annex ZA. CCMC and EC will provide ad-hoc guidance.

All the characteristics of the construction product related to essential characteristics in a standardization request (if available) or proposed by a TC in the answer to a mandate/, , accepted in writing by the European Commission, shall be expressed in a normative way in this clause.

Each product characteristic should be the heading of the sub-clauses of Clause "Characteristics" (e.g. 4.1 Compressive strength, 4.2 Reaction to fire, 4.3 Water absorption, 4.4 Thermal resistance, etc). Construction product characteristics should be expressed, as far as possible, in terms of construction product performance by:

- describing the construction product expected behaviour;
- including the cross reference to the specific subclause of Clause "Testing, assessment and sampling methods" describing the test/assessment/calculation method to be applied for verifying the requested behaviour; In case the Clause 5 "Testing, assessment and sampling methods" does not apply, the test/assessment/calculation method to determine the performance of the product characteristic shall be mentioned in the subclauses of the clause "Characteristics";
- the way of expressing its performance;
- in case of essential characteristics for which the EC has established threshold levels or classes, these are to be introduced in the standard;

Only those construction product characteristics which can be assessed, should be included in the standard.

The starting point for drafting a candidate hEN is to identify the construction product characteristics that need to be included (those in the standardization request (if available) or proposed in the answer/revised answer to the mandate) taking into account the intended use and accepted by the Commission.

In conformity with Clause 24 in the CEN-CENELEC Internal Regulations — Part 3:2019, "Notes", either in the text or as a footnote, serve only to give guidance for the use or understanding of the standard. They shall not contain construction product characteristics, either normative or informative. A note shall not contain any product characteristic, imperative, permission, nor recommendation and any "Note" that does not comply with this rule shall be turned into a normal paragraph and part of the normative portion of the text.

TCs should not, normally, be including prescriptive construction product characteristics on materials to be used in a construction product. If a prescriptive limitation is to be included, it should be under Scope, not as a construction product characteristics. Threshold levels shall not have the effect of excluding construction products, currently legally placed on the market, from the scope of the standard, unless otherwise defined in a EC mandate or Delegated Act.

This means that any test/assessment/calculation method should allow construction products to be tested against the full range of likely levels of construction product performance.

When drafting a hEN TCs shall consider the following provisions when introducing classes and thresholds in hENs:

- If classes and thresholds are not modified (no need to technically justify);
- If any classes and thresholds are modified (including intermediate classes and proxies), the TC shall prepare a request for the modification and/or introduction of new classes and thresholds in hENs. A template is available for those requests, that should be requested as early as possible.

The use of pass/fail criteria have been used in hENs. It should be kept in mind that pass/fail criteria usually define thresholds of performance and should therefore be considered as described above. To be noted that the CPR foresees the following ways of expressing performance:

- level (i.e. a numerical value);
- class;
- threshold level;
- description.

When standards are prepared following the standardization requests modified by M/130 or where the standardization request includes release of dangerous substances as an essential characteristic, technical bodies should consult the specific guidance for addressing dangerous substances in hENs.

Statements such as "product characteristics to be determined by contract between manufacturer and final user", are not allowed in candidate hENs because these do not apply when the construction product is placed on the market.

Moreover, the manufacturer always has the responsibility for the compliance of the construction product with the declared performances and/or to the provisions of the applicable European legislation, and would not meet this responsibility if supplying to a contract which itself did not correctly or fully list the essential construction product characteristics.

Provisions concerning use or installation of the construction product are not to be considered product characteristics, since they are not relevant for the construction product itself, but for its installation/use.

Warning notices shall not be in the Clause "Characteristics", but rather in:

- a) Clause "Marking, labelling and packaging" if they refer to hazards of handling a construction product, or
- b) a separate document, (or possibly an informative annex) if they refer to the application of the construction product which does not affect the construction product characteristics included in the standard.

These are examples for subclauses within the Clause "Characteristics":

EXAMPLE 1

4.1 Reaction to fire

The reaction to fire indicates the behaviour of a construction product in the event of fire. When tested in accordance to the test methods given in 5.xx, the test results are expressed as a class in line with the classification published in the Official Journal of the European Union on this specific matter.

NOTE 1 The applicable document at the time this standard was drafted is Commission Delegated Regulation (EU) 2016/364 of 1 July 2015.

NOTE 2 The performance of the product regarding reaction to fire, can be classified without the need to carry out the assessment if the specific conditions set out in Commission Delegated Acts [reference to the specific delegated act] are satisfied.

EXAMPLE 2

4.2 Resistance to wind loads

The resistance to wind loads of an external blind is characterized by its ability to withstand specified loads simulating the action of wind in positive or negative pressure.

When tested according to 5.3, in extended or retracted position, the resistance to wind loads is expressed according to Table 1.

EXAMPLE 3

4.3 Bending strength

When assessing bending strength this shall be determined according to 5.2. The performance of bending strength shall be expressed in MPa.

4.10 Clause 5 "Testing, assessment and sampling methods"

All construction product characteristics included in Clause "Characteristics", intended to be declared, shall be subject to verification by test, assessment, calculation methods and/or by using tabulated values, to be given in Clause "Testing, assessment and sampling methods", choosing the less onerous method (see CEN-CENELEC Guide 17, subclause 5.4.4). This can be given by a specific subclause here, or by reference to an ISO/IEC or CEN/CENELEC Standard (supporting standards).

Preferably only one method of a particular type (test method, calculation method or deemed to satisfy method) should be referred to for the determination of each characteristic, for a given construction product or family of construction products.

The only exception to this is where the standard gives provisions for declaring the performance related to a specific construction product characteristic without the need of performing tests/assessments/calculations because covered by deemed to satisfy provisions, conventionally accepted performance, classified without testing (CWT), established by EC Decisions or delegated acts.

If two or more test or calculation methods for the determination of one characteristic can be used and if a correlation between them exists, the relevant harmonized product standard must then select one of them as the method of reference.

If, however, for a construction product or family of construction products, more than one method is to be referred to for the determination of the same characteristic, the situation must be justified in the standardization request or answer/revised answer to the mandate and accepted by the European Commission in writing. In this case, all referenced methods should be linked by the conjunction "or" and an indication of application should be given.

Verification methods (testing, assessment and/or calculation) shall have, whenever possible, a horizontal character covering the widest possible range of construction products, and the possibilities for multiple verification methods should be dealt with on a case-by-case basis.

Test, assessment, calculation methods shall be written so that they can be used by anybody (first, second or third party) on any construction product sample. The reference method should be used for the Type testing/Product type determination. The alternative test method with demonstrated correlation with the reference method might be used for the Factory Production Control (FPC). Where appropriate, tests, assessment, calculation methods may be identified to indicate whether they are intended:

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- for the FPC purposes;
- for audit purposes.

The results of tests, assessment and calculation to be expressed in the test report and or manufacturer's record shall be detailed in this clause.

Provisions regarding the sampling are to be stated for each test/assessment method included in this clause of the candidate hEN, unless they are included in the separate standard where the test/assessment method is given (supporting standards referred to by a cross-reference).

Sampling provisions can include the following:

- place of sampling (production line, stockyard in the plant, etc.);
- size and number of samples;
- any statistical method to be applied;
- details to be included in the sampling report.

The setting of sampling levels shall not discriminate between manufactures'

4.11 Clause 6 "Assessment and verification of constancy of performance (AVCP)"

All candidate hEN shall contain this clause, which sets out how the constancy of the declared performances related to the essential construction product characteristics included in the candidate harmonized standard is kept under control and assessed.

Where the AVCP provisions are included in a supporting standard, the hEN shall include at least the heading of the needed clauses or sub-clauses and the reference to the supporting standard.

The AVCP should be seen as a purely technical matter which is closely connected with a specific construction product and the way it is produced. It can, and should be standardized for the benefit of comparability, and clauses on AVCP should be written in a normative way.

When drafting this clause TCs should use the guidance on AVCP 'How to draft clauses on Assessment and Verification of the Constancy of Performance (AVCP) in harmonized standards for construction products'.

NOTE The Guidance on AVCP "How to draft clauses on Assessment and Verification of the Constancy of Performance (AVCP) in harmonized standards for construction products" replaces the AVCP guidance document TF N 548rev1.

Any statements relating to the intervention of a third party (e.g. for certification of constancy of performance) shall not be included in any part of the candidate harmonized product standard. Any standard which seeks (other than in Annex ZA), either directly or indirectly, to make it a normative requirement that AVCP tasks are done by a third party will not be permitted.

ENs specifying product characteristics for a product shall not contain normative references to quality management system requirements (e.g. EN ISO 9001, EN ISO14000 or related series standards) or certification provisions.

4.12 Clause 7 "Product designation"

This clause can be used to define a system of, designation and/or coding of construction products. This clause is optional and can be used when considered relevant for a given product. It should not be confused with product performance classification.

These are examples for Clause "Product designation":

EXAMPLE 1

7 Product designation

For the purpose of this European Standard, an exit system shall be designated according to the ten characters classification described in 7.2. The classification of the exit system shall be presented as per the following example:

3 7 - B 1 1 4 5 1 1 A

EXAMPLE 2

7 Product designation

The adhesive dealt with in this Standard are classified as follows:

- AA: materials with a faster development of water resistance.
- A: materials with a slower development of water resistance.
- B: materials with no requirement for water resistance.

NOTE The European Commission does not consider the clause 'Product designation' useful in harmonized standards.

4.13 Clause 8 "Marking, labelling and packaging"

This clause specifies the marking of a construction product (e.g. manufacturer's or vendor's trademark, model or type number). It may include provisions for the labelling and/or packaging of the construction products (e.g. handling instructions, hazard warnings and date of manufacture).

This Clause shall not refer, either directly or indirectly, to the need for CE marking or associated information. Similarly, any reference to the CE marking in the body of candidate harmonized standards shall be avoided.

When provisions for marking are similar to those which will be necessary for regulatory marking (e.g. DoP and CE marking) the following sentence should be included in the clause 'Marking, labelling and packaging' "Where regulatory marking provisions require information on some or all items listed in this clause, the provisions of this clause concerning those common items are deemed to be met." Additionally, the clause 'Marking, labelling and packaging' should not include any reference to essential characteristics included in the Annex ZA.

These are examples for Clause "Marking, labelling and packaging":

EXAMPLE 1

8 Marking, labelling and packaging

Ceramic tiles and/or their packaging shall be marked as follows:

- a) with the manufacturer's trademark and address;
- b) with a reference to the EN;
- c) with the nominal size and work size, modular (M) or non-modular;
- d) with the nature of the tile surface, i.e. whether glazed or unglazed;

Where regulatory marking provisions require information on some or all items listed in this clause, the provisions of this clause concerning those common items are deemed to be met."

NOTE The European Commission does not consider the clause 'Marking, labelling and packaging' useful in harmonized standards.

4.14 Normative annexes

The normative annexes, if required, shall be prepared according to Clause 20 of CEN-CENELEC Internal Regulations — Part 3:2019.

Normative annexes give provisions additional to those in the body of the document. Their presence is conditional. An annex's normative status (as opposed to informative — see 4.15) shall be made clear by the way in which it is referred to in the text, by an indication in the table of contents and under the heading of the annex.

4.15 Informative annexes

4.15.1 General

The informative annexes, if required, shall be prepared according to Clause 20 of CEN-CENELEC Internal Regulations — Part 3:2019.

4.15.2 Annex ZA (informative)

The Annex ZA shall be used as a basis for the establishment of the declaration of performance preceding the CE marking.

The Annex ZA identifies those clauses of the standard (or refers to clauses in another standard) which cover the essential characteristics included in the standardization request to which it responds, and were considered in the standardization request or answer to the mandate prepared by the TC and accepted by the European Commission.

Moreover, Annex ZA identifies the relevant AVCP system(s) for the product, and for the intended use, in line with the relevant legal act issued by the European Commission.

<u>All candidate hENs shall contain Annex ZA to be drafted using Part 2 of document TF N687rev1</u> which provides the template that new, revised or amended (candidate) harmonized standards shall contain when submitted to enquiry, FV. The template shall not be modified by the Technical Bodies.

NOTE The presentation in Annex ZA of the relevant information regarding the results of mechanical resistance and fire resistance performances for structural construction products when determined by calculation is under development.

4.15.3 Annex ZB, ZC (informative)

These Annexes shall be included in the candidate hEN when the construction product falls also under the field of application of European legislation (New Approach Directives) other than Regulation (EU) No. 305/2011).

Annex ZB, ZC if applicable, shall be drafted in accordance with the current guidance for each New Approach Directive. Guidance can be found in https://boss.cen.eu/reference%20material/guidancedoc/pages/oj.aspx

4.16 Element "Bibliography"

The Bibliography, if required, shall be prepared according to Clause 21 of CEN-CENELEC Internal Regulations — Part 3:2019.

EXAMPLE

[1] ISO/IEC Directives and ISO Supplement. International Organization for Standardization, ©2004-2010 [viewed 2010-04-19]. Available from http://www.iso.org/directives

[2] Statutes and directives. International Electrotechnical Commission, ©2004-2010 [viewed 2011-02-09]. Available from http://www.iec.ch/members_experts/refdocs/