



SLOVENSKI STANDARD

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Poročila za razširjeno uporabo, ki se nanašajo na ognjevarne lastnosti gradbenih proizvodov in elementov stavb: načelo v zvezi s standardi EXAP in poročili EXAP

Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports

Erweiterte Anwendung auf das Brandverhalten von Bauprodukten und Bauelementen: Prinzip der EXAP-Normen und EXAP-Berichte

Application étendue des performances au feu des produits et éléments de construction : principe relatif aux normes EXAP et aux rapports EXAP

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ICS:

13.220.50	Požarna odpornost gradbenih materialov in elementov	Fire-resistance of building materials and elements
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English Version

Extended application on the fire performance of construction products and building elements: Principle of EXAP standards and EXAP reports

Application étendue des performances au feu des
produits et éléments de construction : principe relatif
aux normes EXAP et aux rapports EXAP

Erweiterte Anwendung auf das Brandverhalten von
Bauprodukten und Bauelementen: Prinzip der EXAP-
Normen und EXAP-Berichte

This European Standard was approved by CEN on 6 February 2023.

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This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 15725:2023) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, 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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.

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 15725:2010 and EN 15725:2010/AC:2012.

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

- introduction of a new clause on developing extended application standards;
- updating of definitions and introduction of definitions;
- primary evidence;
- secondary evidence;
- updating the list of references;
- clear exclusion of expert judgement from EXAP applications.

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 organisations 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.

EN 15725:2023 (E)**Introduction**

A construction product and/or a building element may be placed on the market with different thicknesses, densities, fixing conditions, substrates, etc. It is not practicable to test all combinations of different product parameters for the reaction to fire performance or fire resistance or external fire exposure performance, although these parameters may substantially influence the test result.

A building element is understood to be a defined construction component, e.g. wall, partition, floor, roof, beam or column.

The process of extended application uses rules which are essentially based on a worst-case scenario and interpolation techniques. There are a number of practical limitations on the size and design of elements that can be tested by the standard methods of test for fire resistance. When these elements are larger, or are of a modified design, there is a necessity to be able to confirm their performance, i.e. whether the classification(s) given in the classification report in relation to the relevant criteria are maintained, without the ability of being able to test them.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 15725:2023](https://standards.iteh.ai/catalog/standards/sist/c9d6d6c2-520a-476a-a611-191e86978948/sist-en-15725-2023)

<https://standards.iteh.ai/catalog/standards/sist/c9d6d6c2-520a-476a-a611-191e86978948/sist-en-15725-2023>

1 Scope

This document gives the procedures for preparing standards and reports following the extended application (EXAP) process using the results of reaction to fire tests, fire resistance tests (including other performance characteristics e.g. smoke leakage/control and/or durability of self-closing), and external fire exposure to roof tests undertaken for fire classification of products and product families in accordance with the various parts of EN 13501. EXAP rules limit the number of tests required by implementing methods to determine the fire classification of a range of products (e.g. range of product, larger dimensions etc.) and EXAP rules form a standardized technical agreement on the parameter changes.

The fundamental concept of EXAP is the development of safe methods that provide extensions to the scope of the tested product while maintaining the required classification for the product. Test reports constitute the basis of an EXAP report.

This document makes reference to 'extended application standards' throughout; wherever this term is used it refers to either a standard prepared by CEN/TC 127 'Fire safety in buildings' or the relevant product standard which includes information on extended application.

The European system currently permits extended application rules to be included in technical specifications. CEN Technical Committees and EOTA Working groups producing these rules are asked to seek the guidance of CEN/TC 127 to ensure that their rules comply with standards prepared by CEN/TC 127. In cases where extended application rules in harmonized EN product standards and ETAs do not comply with standards prepared by CEN/TC 127 the CEN BT are informed.

This document does not cover the incorporation of the product into the construction works that is justified by national rules.

Expert judgements (i.e. an opinion that is not considered/covered by an EXAP standard and only based on the experience of one individual) do not form part of this process.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

EN 15725:2023 (E)

3.1 classification
 process whereby the fire performance parameters obtained from the results of one test, or a set of tests, or from a process of extended application, are compared with limiting values for those parameters that are set as criteria for achieving a certain classification

Note 1 to entry: This process is defined in EN 13501 series of standards for the relevant product type, as appropriate.

Note 2 to entry: The relevant classes and related criteria are specified in the following Commission Decisions:

a) Resistance to fire:

1) EC Decision 2000/367/EC (OJEU L 133 of 6.6.2000) as amended by EC Decision 2003/629/EC (OJEU L 218 of 30.8.2003);

2) 2011/232/EU: Commission Decision of 11 April 2011 amending Decision 2000/367/EC establishing a classification system for resistance-to-fire performance for construction products, construction works and parts thereof;

b) Reaction to fire:

1) 2016/364: COMMISSION DELEGATED REGULATION (EU) of 1 July 2015 on the classification of the reaction to fire performance of construction products pursuant to Regulation (EU) No 305/2011 of the European Parliament and of the Council (OJ EU L 28 of 15.03.2016);

c) External fire performance for roofs:

1) EC Decision 2001/671/EC (OJUE L 235 of 4.9.2001) as amended by EC Decision 2005/823/EC (OJEU L 307 of 25.11.2005).

3.2 product
 material, element or component about which information is required

3.3 product family
 group of products within defined limits of variability of the product parameters and is derived from (at least) one representative product that has been successfully tested

Note 1 to entry: The limits of variability are to be defined by the manufacturer or a technical specification and are determined by the allowable changes in terms of composition, materials and construction given by the applicable EXAP rules or relevant supporting test(s).

Note 2 to entry: For all product family members the performance (e.g. reaction to fire, fire resistance, smoke control) has to be equal or better than the lowest common classification that the manufacturer wishes to declare for the product.

Note 3 to entry: Product family is only defined on technical basis and agreed between the laboratory and the sponsor.

3.4 product parameter
 aspect of a product (for example thickness, composition, density) which can vary and which may or may not have an influence on the product's fire performance

3.5

building element

complete system of components with a defined performance and end use application for use within buildings

Note 1 to entry: E.g. wall, partition, floor, roof, beam or column.

3.6

end use application

<for reaction to fire> real application of a product, in relation to all aspects that influence the behaviour of that product under different fire situations

<for fire resistance testing> the intended use of the building element or product when installed within the building

Note 1 to entry: For reaction to fire: It covers aspects such as its quantity, its orientation, its position in relation to other adjacent products and its method of fixing.

3.7

end use condition

requirements related to installing the product or building element for it to provide the performance indicated by the EXAP and associated classification report

Note 1 to entry: E.g. jointing, fixing and position with respect to adjacent products.

Note 2 to entry: The mounting and fixing conditions for testing reflect the end use conditions.

3.8

test result

outcome of a testing process and its associated procedures detailed within a specific test standard (which can include some processing of the results from the testing of a number of specimens) and expressed in terms of one or more fire performance parameter(s)

3.9

direct field of application of test results

DIAP

outcome of a process (involving the application of defined rules in the test standards and/or technical specifications) whereby a test result is deemed to be equally valid for variations in one or more of the product properties and/or intended end use applications

3.10

extended field of application of test results

EXAP

outcome of a process (involving the application of the defined rules in EXAP standards that may incorporate calculation procedures) that allows variation of a product property and/or its intended end use application(s), based on one or more test results to the same test standard

Note 1 to entry: It could be based on additional test measurement requested by EXAP and performed during the test.

EN 15725:2023 (E)**3.11****extended application report**

document reporting extended application results, including all details (e.g. test reports) of the approach leading to those results

Note 1 to entry: Approach as specified in Annexes A to C.

3.12**calculation**

method that can be applied to one or more parameters of a result of a test which is based on existing physical laws or which has been empirically validated and which forms part of the process of defining the extended application and can form part of the process of defining the extended application if the calculation is contained within an EXAP standard

3.13**constructional parameter**

design and construction that may be varied and which may result in a change in the fire performance, e.g. a change in the dimensions of a stud in a stud framed separating element

3.14**thermal and mechanical parameters**

conditions of a test that may influence the classification given

3.15**factor**

variation that may be applied to a parameter, e.g. increase of the dimension of a stud

3.16**primary evidence**

test evidence to the European test standard that forms the basis of the extended application that has been conducted on the product or building element that is being considered for extended application

3.17**secondary evidence(s)**

test evidence that supports specific extensions to scope as part of the extended application for the product or building element that is being considered for extended application

Note 1 to entry: The evidence can be on a different product or building element to that being addressed within the extended application, subject to the rules within the EXAP standard.

Note 2 to entry: The test standard must be a European test standard according to the rules within the EXAP standard.

4 Developing extended application standards**4.1 General**

The following gives guidance on the minimum rules on how to write an EXAP standard. An extended application standard shall on principle be based on a sufficient number of relevant tests and/or common scientific interpretation.

The relevance of the supporting evidence for any particular rule shall be agreed by the task group preparing the EXAP standard.

Additional requirement on test methods not being part of EN test standards should be fully described in the EXAP standard and should only be included for the purpose of generating additional data for the purpose of extending the scope of application.

All supporting documentation is considered to be prepared in a way that confidentiality is ensured. The content of the supporting documentation should be summarized in an annex including reasoning to validation of the rule. (e.g. EN 1634-1:2014+A1:2018, Annex C).

4.2 Minimum content of an EXAP standard

4.2.1 General

In addition to the chapter requested in every standard by the CEN rules the following recommendation are specified.

4.2.2 Scope

The scope of the EXAP standard shall specify that it will provide guidance and rules to a type of product in order to extend the application of the available test results.

The scope shall specify the type of product covered and when relevant the type of products not covered.

4.2.3 Normative references

The paragraph on normative references shall follow the CEN rules and shall list the standards referenced to in the document.

4.2.4 Terms and definitions

The paragraph on terms and definitions shall follow the CEN rules and shall list the term and references referenced to in the document.

4.2.5 Technical justification on which the EXAP rule is based

A description of the technical justification shall be presented in an annex of the standard (e.g. background document as used for EUROCODES) and/or when relevant a bibliography shall be added to the standard.

The objective of the justification shall be considered in a way that the application of the EXAP rule shall be repeatable and reproducible and shall not give room for interpretations.

The Technical procedure shall be supported by technical data or calculation.

4.2.6 Evidence for supporting EXAP rules

Suitable evidences required to support the EXAP rules is listed below:

- test data from EN standards;
- ad hoc test data;
- test data from national standards;
- established scientific and engineering principles;
- background information, such as tests performed on a previous version of the standard can be considered for the purpose of the justification of the proposed rules.