SLOVENSKI STANDARD
oSIST prEN 15725:2022

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Poročila za razširjeno uporabo, ki se nanašajo na ognjevarne lastnosti gradbenih proizvodov in elementov stavb

Extended application reports on the fire performance of construction products and building elements

Berichte zum erweiterten Anwendungsbereich bezogen auf das Brandverhalten von Bauprodukten und Bauteilen

Rapports d'application étendue des performances au feu des produits et éléments de construction

Ta slovenski standard je istoveten z: **prEN 15725**

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 reports on the fire performance of construction products and building elements

Rapports d'application étendue des performances au feu des produits et éléments de construction

Berichte zum erweiterten Anwendungsbereich bezogen auf das Brandverhalten von Bauprodukten und Bauteilen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 127.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 15725:2021) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15725:2010.

Introduction

A construction product and 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.

Fire test methods may not include any information on direct application, the result obtained in the test is that which is reported. In a separate exercise it is possible to extend the field of application of the individual test results to a variation of the values of the different product parameters. This 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.

1 Scope

This document gives the procedures for preparing reports on the extended application process using the results of reaction to fire tests, fire resistance tests 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. EXAPS 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.).

The fundamental consideration of EXAP is safe methods that would allow to achieve the requested fire performances for the product.

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. In some cases, where a standard is not yet published, relevant bodies may issue recommendations for use by Notified Bodies in attestation procedures for CE marking under the Construction Products Regulation (CPR).

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.

The EXAP Standard does not cover the incorporation of the product into the construction works that is justified by a national rules.

Expert judgements are excluded.

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.

EN 13238:2010, *Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates*

EN 13501-1:2018, *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*

EN 13501-5:2016, *Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests*

CEN/TS 16459:2019, *External fire exposure of roofs and roof coverings — Extended application of test results from CEN/TS 1187*

3 Terms and definitions

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

ISO and IEC maintain terminological 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

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.

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;

2) EC Decision 2000/147/EC (OJEU L 50 of 23.2.2000) as amended by EC Decision 2003/632/EC (OJEU L 220 of 3.9.2003) and by EC Decision 2006/751/EC (OJEU L 305 of 4.11.2006).

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

[SOURCE: EN 13501-1:2007+A1:2009]

3.3
product family
range of products within defined limits of variability of the product parameters and, if relevant, end use parameters, for which the fire performance remains unchanged (i.e. does not get worse)

Note 1 to entry: Product family is only defined on technical basis

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
building element is understood to be a defined construction component

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

3.6
end use application
real application of a product, in relation to all aspects that influence the behaviour of that product under different fire situations

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

[SOURCE: TS 15117:2005]

3.7
end use condition
way in which the product is incorporated into the building

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
outcome of a process (involving the application of defined rules) 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
outcome of a process (involving the application of the defined rules in EXAP standards that may incorporate calculation procedures) that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of 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

3.11
extended application report
document reporting extended application results, including all details of the process leading to those results

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

3.13
constructional parameter
design and construction that may be varied and which may result in a change in the fire resistance performance, e.g. in a stud framed separating element a change in the dimensions of a stud

3.14
thermal and mechanical parameters
conditions of a test that may influence the classification given, e.g. the pressure differential that will exist at the top of a larger element than existed at the top of the specimen when tested

3.15
factor
variation that may be applied to a parameter, e.g. a change in the stiffness as a result of a dimensional change in the stud

3.16
factor influence
potential cause of a change in the fire resistance when the factor is changed, e.g. an increase in the loadbearing capacity *R* as a result of an increase in stiffness

3.17
evidence

3.17.1
primary evidence
evidence generated from tests carried out only to European Technical specification which is the base of the extended application process

3.17.2
secondary evidence(s)
evidence(s) generated from tests carried out only to European Technical specification which is (are) supplementary evidence provided for the extended application process

4 Extended application Standards

4.1 General

An extended application standard shall on principle be based on a sufficient number of relevant tests evidence and common scientific interpretation.

The test must have been performed according to the relevant EN test standard and can be complemented by other testing methods or by calculation or demonstration of possible extrapolation.

Background information, such as test performed on a previous version of the standard can be considered for the purpose of the justification of the proposed rules.

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 standard 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 evidence considered and their justification shall be presented in the standard 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.

Each EXAP standard shall provide in an annex the technical justification for the rules. (e.g. background document as used for EUROCODES).

4.2.6 General principles

The general principle shall specify the level of expertise requested to perform the EXAP evaluation.

4.2.7 Use of test evidence: reference test - previously existing and justification

Test evidence must follow rules for Primary and secondary evidence for undertaking extended application.

4.2.8 Parameters / factor and rules (described in other parts of the standard)

The set of rules shall be expressed in a shape of a table gathering the parameters/factors to be taken into account.