

Institut luxembourgeois de la normalisation de l'accréditation, de la sécurité et qualité des produits et services

ILNAS-EN 15725:2023

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 Bauteilen: Prinzip der EXAP-Normen und EXAP-Berichte

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National Foreword

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

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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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of an identical text or by endorsement, at the latest by September 2023, and conflicting national standards shall be withdrawn at the latest by September 2023.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.

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.

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

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

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

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

- a) Resistance to fire:
 - 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);
 - 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,
- 2) 2011/232/EU: Commission Decision of 11 April establishing a classification system for resistance-to-fire per construction works and parts thereof;

 b) Reaction to fire:

 1) 2016/364: COMMISSION DELEGATED REGULA classification of the reaction to fire performance of construction No 305/2011 of the European Parliament and of the Council (OJ EC) External fire performance for roofs:

 1) EC Decision 2001/671/EC (OJUE L 235 of 4. 2005/823/EC (OJEU L 307 of 25.11.2005).

 3.2 product material, element or component about which information is required material, element or component about which information is required least) one representative product that has been successfully tested. 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);
 - - EC Decision 2001/671/EC (OJUE L 235 of 4.9.2001) as amended by EC Decision

material, element or component about which information is required

group of products within defined limits of variability of the product parameters and is derived from (at

The limits of variability are to be defined by the manufacturer or a technical specification and Note 1 to entry: 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.

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