
**Razširjena uporaba rezultatov preskusov požarne odpornosti - Nenosilne stene -
3. del: Lahke predelne stene**

Extended application of results from fire resistance tests - Non-loadbearing walls - Part
3: Lightweight partitions

Erweiterter Anwendungsbereich der Ergebnisse von Feuerwiderstandsprüfungen -
Nichttragende Wände - Teil 3: Leichte Trennwände

Extension du champ d'application des résultats des essais de résistance au feu -
Éléments non-porteurs - Partie 3 : Cloisons légères

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ICS:

13.220.50	Požarna odpornost gradbenih materialov in elementov	Fire-resistance of building materials and elements
91.060.10	Stene. Predelne stene. Fasade	Walls. Partitions. Facades

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EUROPEAN STANDARD

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Extended application of results from fire resistance tests - Non-loadbearing walls - Part 3: Lightweight partitions

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essais de résistance au feu - Éléments non-porteurs -
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Teil 3: Leichte Trennwände

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European foreword

This document (EN 15254-3:2019) 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of an identical text or by endorsement, at the latest by February 2020, and conflicting national standards shall be withdrawn at the latest by February 2020.

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EN 15254-3:2019 (E)**1 Scope**

This document provides guidance and, where appropriate, defines procedures for variations of certain parameters and factors associated with the design of lightweight partitions, which have been tested in accordance with EN 1364-1, and classified according to EN 13501-2.

This document only applies to non-loadbearing lightweight partitions with a single steel framework, provided with a lining on both sides of the steel framework. The lightweight partition can be insulated with a mineral wool insulation within the partition cavity or not be insulated.

This document does not apply to any other types of non-loadbearing lightweight partitions considered in EN 1364-1.

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 14195, *Metal framing components for gypsum board systems — Definitions, requirements and test methods*

EN 13162, *Thermal insulating products for buildings — Factory made mineral wool (MW) products — Specification*

EN 15725, *Extended application reports on the fire performance of construction products and building elements* <https://standards.iteh.ai/catalog/standards/sist/1e4b1a9-7390-446a-bf05-e61795bab9e5/sist-en-15254-3-2019>

EN 1363-1, *Fire resistance tests — Part 1: General Requirements*

EN 1363-2, *Fire resistance tests — Part 2: Alternative and additional procedures*

EN 1364-1, *Fire resistance tests for non-loadbearing elements — Part 1: Walls*

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

EN 13501-2, *Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services*

3 Terms and definitions

For the purposes of this document the terms and definitions given in EN 1363-1, EN 1363-2, EN 1364-1, EN 15725 and EN 13501-2, together with the following apply.

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

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

3.1**lightweight partition**

non-loadbearing wall that comprises a single steel framework, provided with a lining on both sides of the steel framework

Note 1 to entry: The lightweight partition cavity can be insulated with a mineral wool insulation within the partition cavity or not be insulated.

3.2**fire performance classification**

classification of the lightweight partition in accordance with EN 13501-2 with only taking into account the E and/or EI-classification

3.3**lining**

layer(s) of boards fixed at each side to the steel framework of the lightweight partition

3.4**board**

product with an A1 or A2 classification according to EN 13501-1 of rectangular shape and cross-section in which the thickness is uniform and substantially smaller than the other dimensions, and where the product is covered by a Technical Specification as defined in the CPR

3.5**mineral wool insulation**

mineral wool as specified in EN 13162

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3.6**metal framework**

framework comprising steel profiles as specified in EN 14195

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3.7**single steel framework**

steel framework comprising only one row of steel studs

3.8**reference test**

fire resistance test in accordance with EN 1363-1 (or EN 1363-2 when applicable) and EN 1364-1, providing primary evidence, on which the extended application is to be based

3.9**additional test evidence**

fire resistance test in accordance with EN 1363-1 (or EN 1363-2 when applicable) and EN 1364-1, providing secondary evidence, on which the extended application is supported

3.10**overrun time**

time of fire resistance in minutes beyond the fire performance classification time achieved in the test

3.11**shape of the profiles of the metal framework**

type of profile designated by the prefix-letter (e.g. C- or U-shaped)

4 Principles

4.1 General principles

Extended application is the outcome of a process (involving the application of defined rules 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 standard.

The extended application of the lightweight partition shall be based on the reference fire test results performed according to EN 1364-1. Extended application reports shall be prepared according to EN 15725.

When performing extended applications for a tested partition changes can occur either in materials and/or in the construction. Both are dealt with in this standard. Table 1 gives an overview of the changes which may be made in accordance with this extended application standard.

Table 1 — Modifications and rules for lightweight partition walls

Modification	Rule see clauses
<u>Linings</u>	
Exchange of linings	6.1.1
Increase/decrease of the number of layers of boards	6.1.2
Increase/decrease of the dimensions of the boards	6.1.3
Change in board orientation	6.1.4
Change of position of layers of the boards	6.1.5
<u>Metal framework</u>	
Change in shape of the steel profiles	6.2.2
Increase/decrease of the nominal thickness of the steel profiles	6.2.3
Increase/decrease of the nominal steel profiles depth (web)	6.2.4
Increase/decrease of the nominal steel profiles width (flange)	6.2.5
Increase/decrease of the stud spacing	6.2.6
<u>Mineral wool insulation</u>	
Addition of mineral wool	6.3.2
Removal of mineral wool	6.3.3
Exchange of mineral wool	6.3.4
Increase/decrease of the tested density of the mineral wool	6.3.5
Increase/decrease of the thickness of the mineral wool	6.3.6
<u>Lightweight partition (system)</u>	
Increase of height of the lightweight partition	6.4.1
Increase of width of the lightweight partition	6.4.2

4.2 Use of test evidence

4.2.1 General

The applicant for the extended application shall either be the “owner” (i.e. sponsor) of the reference test and additional test evidence being submitted for the extension, or have written permission from the owner to use the submitted test evidence.

4.2.2 Use of additional test evidence

Additional test evidence may be used to support extended application, for instance to evaluate the influence of a particular component.

5 General rules

5.1 Fire performance classification

In the extended application, an increase in the classification time (e.g. from 30 min to 45 min) shall not be permitted.

5.2 Combination of modifications

A combination of modifications mentioned in Table 1 is allowed.

5.3 Reference test

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5.3.1 General

The basis for any extension is the reference test.

In case of an extended application described in Clause 6, the reference test shall have an overrun time and/or a deflection less than the maximum allowed deflection if mentioned in the relevant clause.

5.3.2 Overrun time

For some extended applications an overrun time is required. The required overrun time depends on the intended classification time as shown in Table 2 below.

Table 2 — Required overrun time

Classification time min	Overrun time required
≤ 30	≥ 3 min
> 30 and ≤ 60	≥ 6 min
> 60	≥ 10 % of the classification time

5.3.3 Maximum deflection

The maximum deflection of the lightweight partition is not in excess of $h/30$ with h being the height of the tested lightweight partition.