



BSI Standards Publication

Covering — Determination of fire protection ability

National foreword

This British Standard is the UK implementation of EN 14135:2025. It supersedes BS EN 14135:2004, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/22/-/7, Non loadbearing separating elements.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Date	Text affected
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English Version

Covering - Determination of fire protection ability

Revêtements - Détermination de la capacité de
protection contre l'incendie

Brandschutzbekleidungen - Bestimmung der
Brandschutzwirkung

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European foreword

This document (EN 14135:2025) 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of an identical text or by endorsement, at the latest by March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

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 14135:2004.

EN 14135:2025 includes the following significant technical changes with respect to EN 14135:2004:

- the criteria for K₂, an additional evaluation method and a vertical test has been included.

This document is used in conjunction with EN 1363-1.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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.

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Introduction

This document has been prepared to provide a method of test for assessing a coverings ability to protect underlying materials against fire.

Fire protection ability K is the ability of a wall or ceiling covering, to provide for the material behind the covering, protection against ignition, charring and other damage for a specified period of time. EN 13501-2 describes and define the difference between K_1 and K_2 .

WARNING — The attention of all persons concerned with managing and carrying out this test is drawn to the fact that fire testing can be hazardous and that there is a possibility that toxic and/or harmful smoke and gases can be involved during the test. Operational hazards can also arise during the testing of specimens and the disposal of test residues.

An assessment of all potential hazards and risks to health should be made and safety precautions should be identified and provided. Written safety instructions should be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

1 Scope

This document is applicable to all coverings, including but not limited to renderings, boards with and without air gaps and installed with various support systems. This document specifies a method for determining the ability of a covering to protect underlying materials against damage during a specified fire exposure.

The document is not used for the evaluation of fire resistance classifications (e.g. EI, EW, E) or reaction to fire classifications (specified in EN 13501-1).

The fire protection ability is influenced by the presence of combustible materials in the cavity behind the covering. The applicability of the results is limited according to the quantity and position of such combustible materials within that cavity.

NOTE The amount of combustible materials permissible in the cavity is generally laid down in national regulations.

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 1363-1, *Fire resistance tests - Part 1: General requirements*

EN ISO 13943, *Fire safety - Vocabulary (ISO 13943)*

EN 312, *Particleboards - Specification*

EN 13163, *Thermal insulation products for buildings – Factory made expanded polystyrene (EPS) products – Specification*

EN 13164, *Thermal insulation products for buildings – Factory made extruded polystyrene foam (XPS) products – Specification*

EN 60584-1, *Thermocouples - Part 1: EMF specifications and tolerances*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1363-1 and EN ISO 13943 and the following 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>

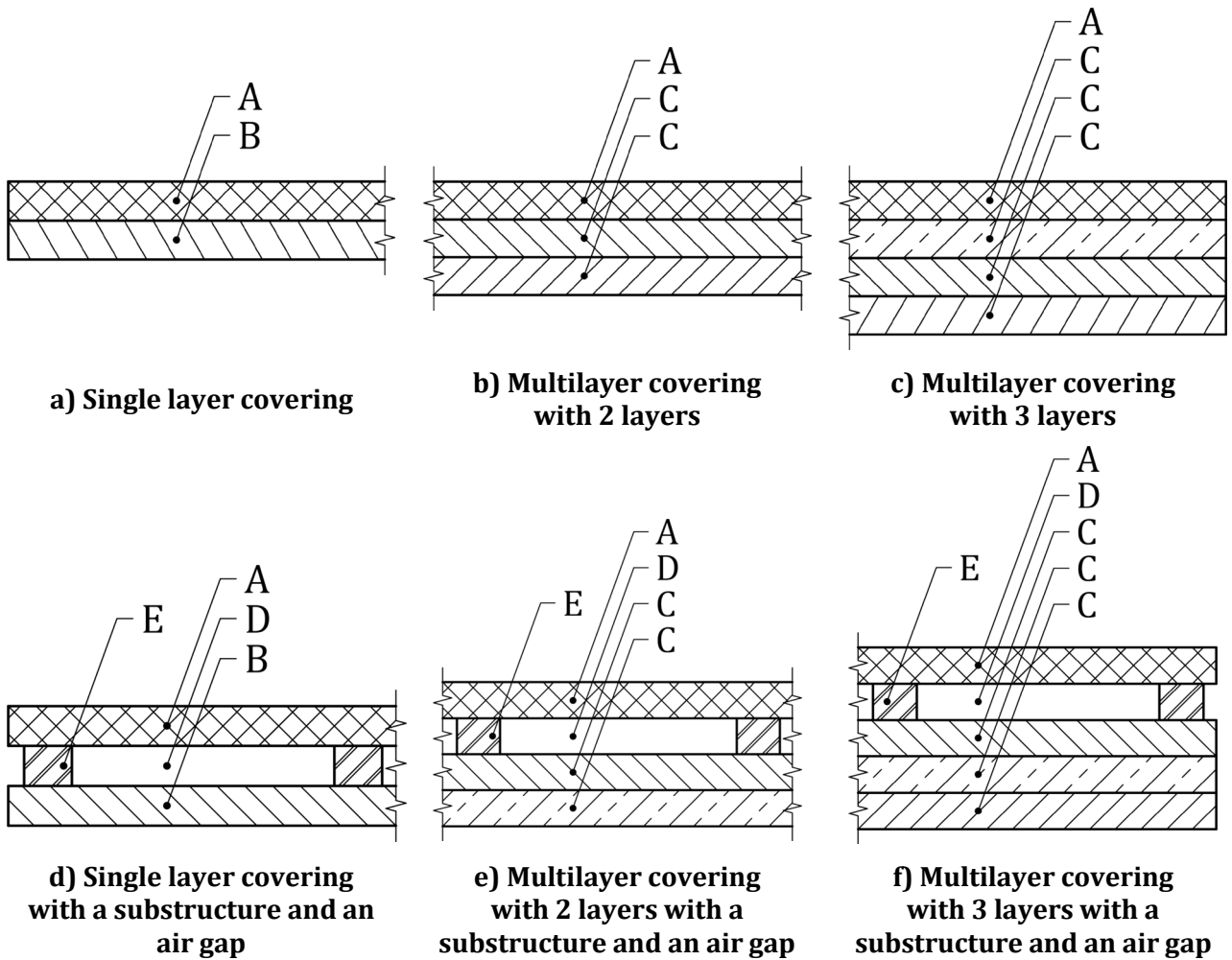
3.1

covering

test specimen

material(s) or product(s), including installation method, which is intended to protect an underlying substrate against damage behind the covering, during a specified fire exposure

Note 1 to entry: A covering could be single layer or multilayer, with or without an air gap, see Figure 1.

**Key**

- A substrate
- B single layer covering
- C multilayer covering
- D air gap
- E substructure

Figure 1 — Covering examples**3.2****substrate**

underlying material which is used behind a covering which needs protection against ignition, charring and other damage

Note 1 to entry: For multi-layered products, the inner layer can function as substrate, see Figure 1.

3.3**damaged substrate**

substrate which has been burnt or charred

Note 1 to entry: Discoloration and soot deposits are not regarded as damage.

3.4

burnt substrate

substrate which has been destroyed by combustion or pyrolysis

Note 1 to entry: The substrate is considered to be burnt if the surface is scratched with a hard material e.g. a metal key and the surface is decomposed.

3.5

charred substrate

substrate which has formed carbonaceous residue resulting from pyrolysis or combustion

Note 1 to entry: The substrate is considered to have charred if the surface is scratched with a hard material e.g. a metal key and the surface is decomposed.

3.6

discoloured substrate

substrate which has changed colour but not burned or charred

3.7

shrunk substrate

substrate which has decreased in dimensions

3.8

melted substrate

substrate which has changed state due to the influence of heat

3.9

directly fixed covering

covering directly fixed to the substrate without a separate substructure

3.10

covering with an air gap

covering fixed to the substrate with a separate substructure (e.g. battens), generating an air gap or a covering with a separate system (e.g. grid) for holding the covering (e.g. suspended ceilings)

3.11

collapse

deterioration of the covering or part of the covering exposing the substrate directly to the fire

Note 1 to entry: A collapse has not occurred when the outer layers of a multilayer covering breaks or falls down.

3.12

supporting construction

construction that may be required for the testing of some building elements into which the test specimen is assembled as described in EN 1363-1

3.13

integrated installation

element, that is installed within the covering, which have different thermal insulation properties than the covering

Note 1 to entry: The integrated installations are within the covering. Integrated installation can pass through the covering, see Figure 2.

Note 2 to entry: Examples include lamps, fire alarms, speakers, sprinklers, ventilation outlet.

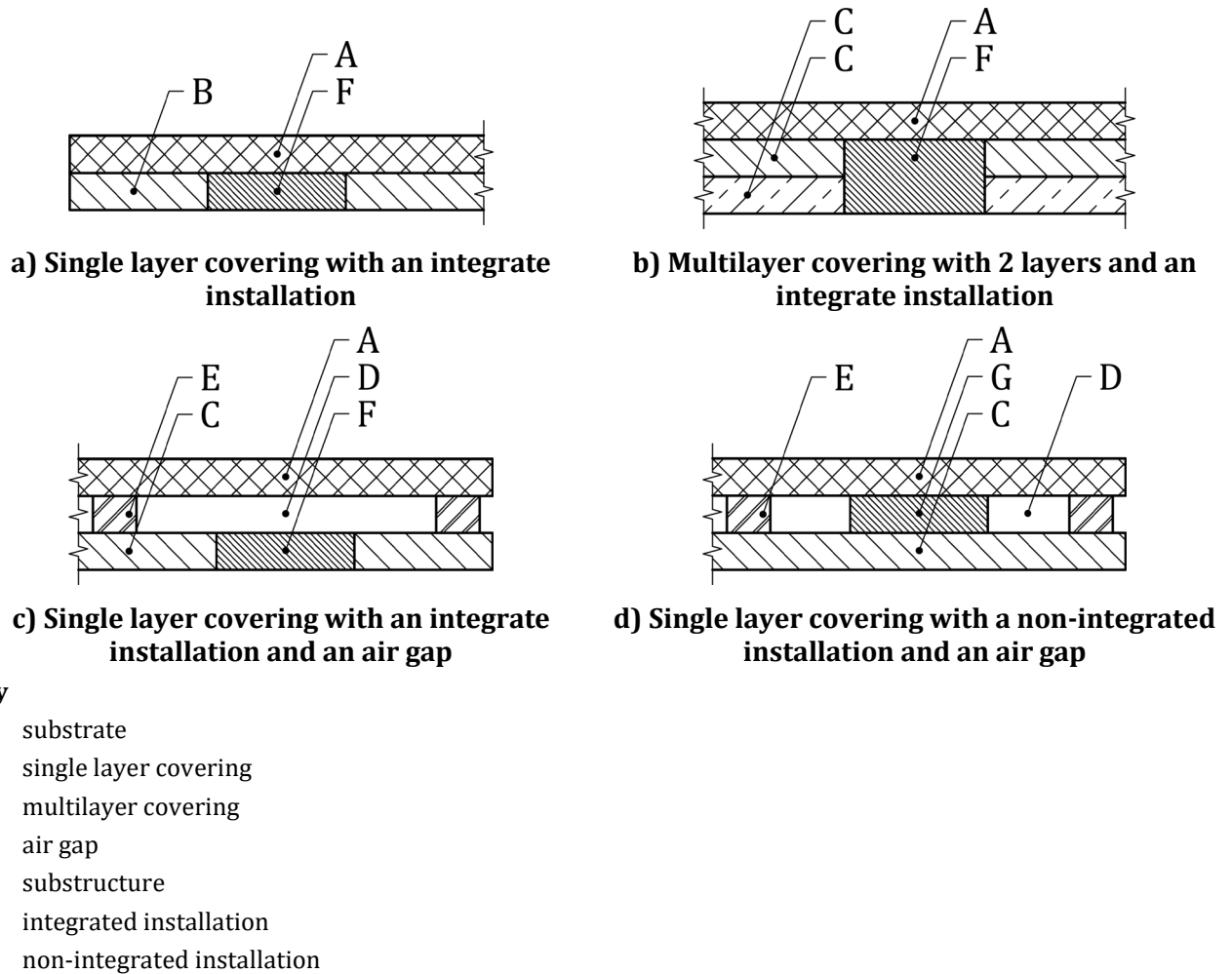


Figure 2 — Examples of integrated installation and non-integrated installations within the covering

3.14

non-integrated installation

element that is installed between the covering and substrate, e.g. cables, pipes, ventilation ducts in the cavity between the substrate and the covering, not passing through the covering

Note 1 to entry: See Figure 2.

3.15

substructure

product (e.g. battens or metal components) to which the covering is fixed

3.16

cavity

concealed volume(s) in the air gap

Note 1 to entry: Cavity can be with or without material.