



BSI Standards Publication

Railway applications — Fire protection on railway vehicles

Part 3: Fire resistance requirements for fire barriers

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National foreword

This British Standard is the UK implementation of EN 45545-3:2024. It supersedes BS EN 45545-3:2013, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/19, Fire Precautions in Railway Vehicles.

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

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UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date

Text affected

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EUROPÄISCHE NORM

March 2024

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Supersedes EN 45545-3:2013

English Version

Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers

Applications ferroviaires - Protection contre les incendies dans les véhicules ferroviaires - Partie 3 : Exigences de résistance au feu des barrières au feu

Bahnanwendungen - Brandschutz in Schienenfahrzeugen - Teil 3: Feuerwiderstand von Feuerschutzabschlüssen

This European Standard was approved by CEN on 22 October 2023.

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

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European foreword

This document (EN 45545-3:2024) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by August 2024, and conflicting national standards shall be withdrawn at the latest by August 2024.

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 45545-3:2013.

The main changes from EN 45545-3 are:

- Modification of the scope;
- Modification of dated references;
- Renumbering of 5.1 due to deletion of previous 5.1.1, 5.1.2, 5.1.3 and 5.1.4;
- Modification of 5.5;
- Modification of Table 1;
- Modification of 5.6.3;
- Modification of 5.6.4;
- Modification of Table 2;
- Modification of A.5;
- Modification of A.10;
- Addition of Annex B with elements of previous 5.5.2.

This series of European Standards *Railway applications — Fire protection on railway vehicles* consists of:

- Part 1: General;
- Part 2: Requirements for fire behaviour of materials and components;
- Part 3: Fire resistance requirements for fire barriers;
- Part 4: Fire safety requirements for railway rolling stock design;
- Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles;
- Part 6: Fire control and management systems;
- Part 7: Fire safety requirements for flammable liquid and flammable gas installations.

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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.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

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.

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Introduction

EN 45545-3 has been developed from existing fire safety regulations for railway vehicles from the International Union of Railways (UIC) and different European countries.

In using the operation and design categories defined in EN 45545-1, the requirements laid down in this part take into account the current operating conditions for European public rail transport.

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1 Scope

This document specifies the fire resistance requirements and testing methods for fire barriers for railway vehicles.

The objective of the measures and requirements, specified in this document, is to protect passengers and staff in railway vehicles in the event of a developing fire on board.

Use of a Fire Containment and Control System, where permitted as an alternative to a fire barrier, is not in the scope of this document. It is not within the scope of this document to describe measures that ensure the preservation of the railway vehicles in the event of a fire.

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 1363-1:2020, *Fire resistance tests — Part 1: General requirements*

EN 1364-1:2015, *Fire resistance tests for non-loadbearing elements — Part 1: Walls*

EN 1364-2:2018, *Fire resistance tests for non-loadbearing elements — Part 2: Ceilings*

EN 1634-1:2014+A1:2018, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 1: Fire resistance test for door and shutter assemblies and openable windows*

EN 13501-2:2016, *Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services*

EN 45545-1:2013, *Railway applications — Fire protection on railway vehicles — Part 1: General*

EN 45545-5:2013+A1:2015, *Railway applications — Fire protection on railway vehicles — Part 5: Fire safety requirements for electrical equipment including that of trolley buses, track guided buses and magnetic levitation vehicles*

EN ISO 1182:2020, *Reaction to fire tests for products — Non-combustibility test (ISO 1182:2020)*

EN ISO 1716:2018, *Reaction to fire tests for products — Determination of the gross heat of combustion (calorific value) (ISO 1716:2018)*

EN ISO 13943:2017, *Fire safety — Vocabulary (ISO 13943:2017)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 45545-1:2013 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>