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BS 8214:2026 FIRE-RESISTING & SMOKE CONTROL DOORS



A practical website guide to specification, design, installation, inspection, maintenance, evidence and the principal changes from BS 8214:2016.

PREPARED FOR WEBSITE USE
Emergi-Safe Ltd

This guide summarises important and notable provisions of BS 8214:2026. It is a practical overview and does not reproduce the British Standard.



DESIGN & SPECIFICATION



INSTALLATION & MAINTENANCE



INSPECTION & COMPLIANCE

Edition status: BS 8214:2026 was published by BSI on 20 March 2026 and came into effect on 31 March 2026. It supersedes and withdraws BS 8214:2016. The current standard covers fire-resisting and smoke-control pedestrian door assembllies of timber, steel, aluminium and composite construction.

IMPORTANT CAVEAT: This document is a guide only. It must not be used instead of BS 8214:2026, the relevant fire-test evidence, certification/field of application information, Building Regulations, fire safety legislation, manufacturer instructions or the building fire strategy.

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EXECUTIVE SUMMARY – WHAT CHANGED IN 2026



BS 8214:2026 is a substantial revision. The 2016 edition was specifically centred on timber-based fire door assemblies. The 2026 edition expands the code of practice to fire-resisting and smoke-control doors of multiple materials and places greater emphasis on the complete door assembly, supporting evidence, installation quality and performance in use.

Headline changes

All-material scope	Coverage now includes timber, steel, aluminium and composite fire-door assemblies, with material-specific annexes.
Complete-system approach	Leaf, frame, seals, hardware, glazing and installation need to work together as the tested/assessed assembly.
Evidence-led compliance	Greater importance is placed on test evidence, classification, field of application and documented product information.
Installation clarified	Section 9.4 has been strengthened to reduce misinterpretation and non-compliant installation.
Frame-to-wall interface	Greater attention is given to evidence and materials used to seal the interface between the frame and surrounding construction.
Smoke control	Guidance has been updated in line with BS 9991, including treatment of under-door gaps.
Hardware	Stronger emphasis on compatibility and control of essential/ non-essential hardware and substitutions.
Regulatory alignment	Reflects UKCA/CE developments and the wider Building Safety Act and Fire Safety Act framework.

The central message

A fire door should not be judged as a collection of individually "fire-rated" components. Performance depends on the complete, compatible assembly and its installation. Changing a hinge, closer, lock, seal, glazing system, frame detail or fixing arrangement can affect the evidence supporting the door.

SCOPE IN ONE VIEW



2016	2026
Timber-based fire door assemblies were the principal subject.	Fire-resisting and smoke-control pedestrian door assemblies of timber, steel, aluminium and composite construction.
Guidance was heavily timber-focused.	Material-specific guidance is provided for different construction types.
Installation guidance existed but key areas could be interpreted differently.	Installation requirements are clarified, particularly around the frame/structural interface.
Smoke-control guidance reflected the earlier framework.	Smoke-control guidance updated in line with BS 9991, including under-door sealing considerations.

2016 → 2026: DETAILED PRACTICAL COMPARISON

This is a practical summary of the principal changes most relevant to inspectors, installers, specifiers, facilities teams and responsible persons. It is not a clause-by-clause reproduction.

Topic	BS 8214:2016	BS 8214:2026
Scope	Timber-based fire door assemblies.	Fire-resisting and smoke-control doors of timber, steel, aluminium and composite construction.
Metal/composite doors	No comparable comprehensive material-specific guidance within BS 8214.	New guidance addresses manufacture, installation and maintenance.
Fire-door concept	Assembly-based, principally timber-focused.	Stronger complete-system and evidence-led approach across materials.
Evidence	Tested construction and supporting information important.	Greater emphasis on classification, field of application and documented compatibility.
Installation	Installation guidance existed.	Section 9.4 clarified to reduce misunderstanding and non-compliant installation.
Frame/structure interface	Guidance existed.	More explicit treatment of sealing the interface and acceptable evidence for materials such as stone wool, mastic and foam sealants.
Smoke control	Existing smoke-seal provisions.	Updated in line with BS 9991, including under-door gap/sealing guidance.
Hardware	Fire-rated hardware considered within assembly.	Greater focus on compatibility, essential/non-essential hardware and evidence for changes/substitution.
Regulatory context	Earlier UK framework.	Updated for UKCA/CE developments and current building-safety legislation.
Lifecycle	Specification, installation and maintenance guidance.	Greater emphasis on evidence, accountability and performance in use.

IMPORTANT: a new edition does not mean every existing compliant fire door must automatically be replaced. Existing doors should be assessed in context; new work, alterations, replacement components and remedial decisions should be based on current requirements and the door's evidence.

FIRE DOOR AS A COMPLETE, TESTED SYSTEM



Fire resistance is a property of the tested or assessed assembly. A fire-rated leaf cannot automatically be assumed to remain compliant when installed with an unrelated frame, glazing system, hardware package, seal arrangement or fixing method.

The assembly includes

Door leaf	Construction, thickness, cores, facings, lippings, edge details and apertures consistent with the supporting evidence.
Frame	Material, section, dimensions, fixing method, packers and interface to the surrounding structure.
Intumescent protection	Correct product, size, location, continuity and compatibility.
Smoke seals	Correct type, position, continuity and condition where smoke control is required.
Hardware	Hinges, latch/lock, closer, panic/escape hardware, electromagnetic devices and other hardware must be suitable.
Glazing	Fire-resisting glass, glazing system, beads, gaskets/seals and installation arrangement supported by evidence.
Threshold	Floor interface, smoke-control arrangement and any drop seal or threshold system consistent with the configuration.
Fixings and frame interface	Surrounding wall construction and sealing arrangement appropriate to the assembly.

EVIDENCE HIERARCHY



Evidence is needed to demonstrate that the fire door assembly has been tested or assessed, and that it has been installed and maintained in line with the tested configuration.

Evidence hierarchy

Evidence / information	What it establishes
Fire test report	Performance demonstrated under the relevant test arrangement and conditions.
Field of Application / assessment	Permitted variations and extensions from the tested configuration, where applicable.
Third-party certification	Independent evidence of product/assembly performance and controlled manufacture/installation where certification applies.
Manufacturer instructions	Specific requirements for the product and approved configuration.
Product data / marking	Identity, rating, material, hardware or other product information as applicable.
Site installation record	What was actually installed, including deviations, materials, fixings and installer information.

A generic label, plug, sticker or nominal FD30/FD60 description is not proof of the complete installation. Evidence needs to be traceable to the actual assembly and configuration.

SPECIFICATION, CLASSIFICATION AND SUPPORTING EVIDENCE

The correct fire door specification starts with the building's fire strategy, compartmentation and door function. BS 8214:2026 places increased emphasis on understanding the required performance and the evidence that demonstrates it.



Before specifying a fire door

Identify performance requirements	Identify required fire-resistance and smoke-control performance from the fire strategy, compartmentation strategy, door schedule and applicable Building Regulations guidance.
Confirm product type	Confirm whether the product is a doorset, door assembly or door kit and identify the applicable product/test route.
Establish fire exposure	Establish direction of fire exposure and restrictions associated with the evidence.
Consider smoke control	Identify whether smoke control is required and what evidence applies.
Check frame and interface	Confirm frame type, wall construction and interface details before procurement.
Specify compatible hardware	Specify compatible hinges, closers, locks/latches, panic/escape hardware, access control and hold-open/release systems.
Confirm glazing	Confirm glazing type and permitted glazing arrangement where applicable.
Control substitutions	Control substitutions. A component that is "fire rated" in isolation is not automatically acceptable in another tested assembly.
Retain evidence	Retain the evidence package and installation instructions as part of the project record.

Fire classification

BS 8214:2026 applies to doors designed to provide fire resistance when tested in accordance with BS 476-22 or BS EN 1634-1, and smoke control in accordance with BS 476-31.1 or BS EN 1634-3. The exact classification and evidence applicable to a particular door must be confirmed from its documentation rather than inferred from a generic FD label.

The practical rule is: specify the performance first, then procure an assembly for which that performance is demonstrably supported.

Doorsets vs door assemblies

Products within separate designated/harmonised product frameworks may have additional marking and product-standard requirements. The correct compliance route depends on the product and application.

INSTALLATION - WHERE MANY FIRE DOORS ARE WON OR LOST



The 2026 revision specifically clarifies installation requirements, with Section 9.4 highlighted as an important area of change. The objective is to reduce interpretation and ensure the installed assembly reflects the evidence.

Installation principles

Install to evidence	Work from approved installation instructions and supporting evidence, not a generic installation method.
Prepare the opening	Confirm dimensions, plumb, level, structural condition and suitability of the surrounding wall.
Frame fixing	Use the specified fixing arrangement and approved packing/ materials. Secure the frame to the supporting structure.
Frame-to-wall sealing	Use a suitable evidence-supported arrangement; the 2026 guidance gives clearer treatment of sealing materials and evidence.
Leaf clearance	Set and verify gaps against the door's tested/assessed configuration. Do not impose a generic gap where the evidence requires otherwise.
Hardware	Install compatible hardware in approved positions with appropriate fixings.
Seals	Install continuous intumescent and smoke seals as specified, without breaks, damage or unauthorised trimming.
Glazing	Use the correct glass, beads, seals and glazing system.
Closer	Commission so the door closes and latches reliably from the required opening positions.
Final inspection	Inspect the complete assembly after installation.

Frame / surrounding structure

The interface between the frame and surrounding construction is a key 2026 emphasis. The revised guidance provides clearer consideration of materials such as stone wool, mastic and foam sealants and the evidence required for the application.



Do not assume ordinary expanding foam is acceptable simply because it is labelled "fire rated". The relevant question is whether the specific product, gap, installation arrangement and surrounding construction are supported by appropriate evidence and manufacturer requirements.

INSPECTION AND REMEDIAL ASSESSMENT – A PRACTICAL APPROACH



A fire-door inspection should assess the door as a functioning fire-and-smoke-control assembly. It should not be reduced to checking the leaf and measuring one gap.

Inspection areas and what to look for

Inspection area	What to look for
Door leaf	Damage, splits, delamination, distortion, impact damage, unauthorised holes/cut-outs, excessive edge damage and alterations inconsistent with evidence.
Frame	Damage, distortion, loose fixings, inadequate packing, movement, corrosion where relevant and poor interface to surrounding wall.
Intumescent seals	Present, correct type/size, continuous, seated correctly, undamaged and not painted over or excessively cut.
Smoke seals	Present where required, continuous, correctly positioned, undamaged and able to make intended contact.
Hinges	Correct type/quantity, fire-rated hinges (e.g. CE/UKCA marked to BS EN 1935), secure fixings, no excessive wear/damage; compatible with assembly evidence.
Closer	Door closes fully and latches without manual assistance; correct specification (e.g. EN 1154, UKCA/CE marked), correct power setting and mounting position.
Latch/lock	Operates correctly and engages fully; hardware compatible with tested/assessed configuration (e.g. EN 12209).
Panic/escape hardware	Correct operation, secure fixing and compatibility with the door evidence and escape strategy (e.g. EN 1125/EN 179).
Glazing	Correct fire-resisting glass/system where applicable (e.g. EN 1634-1), no damage; beads and seals secure.
Door gaps	Measure head, jamb and threshold clearances and compare with tested/assessed configuration and applicable guidance (typically 2–4 mm).
Floor/threshold	Check binding, threshold clearance, damage and interaction with smoke seals/ drop seals.
Signage	Correct fire-door signage where required; legible and secure (e.g. 'Fire door keep shut' as per BS 5499-1).
Hold-open/access control	Approved release arrangement, correct interface and safe closure on release; no unauthorised hold-open (e.g. EN 1155).
Surrounding compartmentation	Check frame/wall interface and nearby penetrations/damage that could undermine compartmentation.

Record evidence, defects, photographs, measurements and recommendations so the responsible person can understand the condition and priority of the door.

GAPS, SEALS, HARDWARE AND SMOKE CONTROL

Gap measurements remain important, but BS 8214:2026 should not be reduced to a single "3 mm rule". Published commentary on the 2026 edition describes a nominal 3 mm / working-tolerance approach for perimeter gaps, while stressing that the door's tested configuration and supporting evidence take precedence, particularly for smoke-control thresholds and drop seals.



Gaps, seals and thresholds

Area	Practical approach
Head and jambs	Measure representative points. Compare with manufacturer instructions, test evidence/assessment and applicable BS 8214 guidance. Do not rely on a generic number where evidence specifies otherwise.
Threshold – fire-only	Assess against the approved door configuration and floor arrangement; threshold clearance is not necessarily the same as head/jamb clearance.
Threshold – smoke-control	Treat the threshold as part of the smoke-sealing system. Use a tested, fire-rated drop seal; threshold seals and under-door gaps must match the tested/assessed arrangement.
Uneven floors	Check floor joints, ramps, thresholds or raised areas do not prevent closing or compromise seals.
Excessive gaps	Investigate cause: frame movement, hinge wear, poor installation, leaf distortion, floor changes or incorrect hardware. Remedy the cause.

Hardware

Hardware should be treated as part of the fire-door system. A replacement closer, latch, lock, panic device, access-control component or other item should be checked for compatibility with the evidence supporting the door. The revised industry guidance highlights the importance of controlling substitutions.

Smoke control

BS 8214:2026 updates smoke-control guidance in line with BS 9991, including best-practice consideration of under-door gaps. Smoke control should therefore be considered separately from fire resistance: a door can have adequate fire resistance while still performing poorly as a smoke-control door if seals, threshold arrangements or clearances are incorrect.

Practical rule: never select a seal, closer, hinge, lock or threshold product simply because it is marketed as "fire rated". Establish that it is appropriate to the actual fire-door assembly.

MAINTENANCE, REMEDIALS AND LIFECYCLE MANAGEMENT



The 2026 standard extends practical guidance across material types and reinforces performance in use. A fire door should remain capable of performing its intended function throughout its service life.

Common defects and remedial approach

Defect	Typical investigation / remedial approach
Door will not self-close	Check hinges, closer, floor interference, seals, distortion and hardware. Repair the cause and confirm full closure/latching.
Excessive perimeter gap	Identify why the gap exists before altering the leaf. Consider rehanging, hinge/frame correction, adjustment or replacement where supported by evidence.
Damaged intumescent	Replace with appropriate compatible product and configuration supported by evidence.
Damaged smoke seal	Replace with correct compatible fire-rated smoke seal; do not mix products without evidence.
Loose/damaged hinges	Repair/replace with compatible fire-rated hinges and correct fixings. Verify resulting configuration.
Incorrect closer	Replace with a suitable, certified fire door closer (e.g. EN 1154/UKCA) and commission to ensure the door closes and latches correctly.
Unauthorised hole/cut-out	Assess against fire-door evidence. Do not automatically fill or patch; significant alterations may require specialist assessment or replacement.
Damaged leaf	Assess extent/location. Minor repairs may be possible where supported; otherwise replacement may be required.
Frame/wall gap	Investigate opening and use an evidence-supported sealing arrangement.
Glazing damage	Do not substitute ordinary glass. Replace using approved fire-resisting glazing system.
Wedge/doorstop	Remove unauthorised hold-open arrangements. If hold-open is required, use an approved automatic release device.
Floor obstruction	Remove/rectify obstruction or modify only where resulting configuration remains supported.

Maintenance records



Fire Door Maintenance Record

Location	Component	Condition	Action	Date
Ground Floor	Door leaf	Good	-	12/03/2025
Ground Floor	Closer	Good	-	12/03/2025
Ground Floor	Smoke seal	Good	-	12/03/2025
Ground Floor	Glazing	Good	-	12/03/2025
Ground Floor	Gaps	Good	-	12/03/2025
Ground Floor	Signage	Good	-	12/03/2025

A robust fire-door management system should record asset identity, location, rating/designation where known, inspection date, condition, defects, photographs, measurements, remedial action, evidence used, completion date and responsible contractor/person. Statutory information-management duties may also apply depending on the building.

Do not create a new non-compliant door while repairing an old one. Every remedial intervention should be checked against the evidence supporting the existing assembly.

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Ground Floor	Glazing	Good	-	12/03/2026
Ground Floor	Gaps	Good	-	12/03/2026
Ground Floor	Signage	Good	-	12/03/2026

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IMPORTANT LEGAL AND TECHNICAL CAVEAT



Key points to note

This document is a guide only and must not be used instead of BS 8214:2026. It is intended as a practical website overview and does not reproduce the British Standard. It is not a substitute for the current standard, fire-test reports, field of application/ assessment documents, third-party certification, manufacturer instructions, the building fire strategy, Building Regulations, the Regulatory Reform (Fire Safety) Order 2005, the Fire Safety Act 2021, the Fire Safety (England) Regulations 2022 or other applicable legislation and guidance. Where a detailed design, installation or remedial decision is required, the actual door evidence and applicable current requirements should be checked by a suitably competent person.

Sources and further reading

Primary reference: BSI, BS 8214:2026
Fire-resisting and smoke control doors – Practical considerations concerning specification, design and performance in use – Code of practice. BSI records publication on 20 March 2026 and identifies the standard as current and superseding BS 8214:2016.

Supporting cross-checks included BSI published material, Fire Industry Association commentary, IHEEM/DHF industry information and specialist fire-door technical commentary. This guide paraphrases requirements rather than reproducing copyrighted standard text.

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