

BS 4873:2009



BSI Standards Publication

Aluminium alloy windows and doorsets – Specification

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Summary of pages

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Foreword

Publishing information

This British Standard is published by BSI and came into effect on 28 February 2009. It was prepared by Subcommittee B/538/1, *Windows*, and Subcommittee B/538/2, *Doors*, under the authority of Technical Committee B/538, *Doors, windows, shutters, hardware and curtain walling*. A list of organizations represented on these committees can be obtained on request to their secretary.

Supersession

This British Standard supersedes BS 4873:2004, which is withdrawn.

Relationship with other publications

The requirements and properties for aluminium window and door extrusions are specified in BS EN 755-1, BS EN 755-9, BS EN 12020-1 and BS EN 12020-2.

This British Standard is also related to the following standards.

- BS EN 14351-1 is the harmonized European product standard for windows and external pedestrian doorsets without resistance to fire and smoke leakage characteristics. It gives a list of performance characteristics and classifications of performance, but does not give guidance on determining the appropriate classification for any specific application.
- BS 6375 is the national application document in the UK, giving performance requirements and guidance for the selection of appropriate classes of performance from BS EN 14351-1.
- BS 8213-4 provides guidance on the survey and installation of replacement windows and external pedestrian doorsets.

Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- changes taking into account the publication of the harmonized European standard BS EN 14351 to remove any conflict between the standards ¹⁾;
- information on how the requirements relate to the European Construction Products Directive [1].

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

¹⁾ At the time of publication of this edition of BS 4873, only BS EN 14351-1 has been published. Parts 2 and 3 are in preparation.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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

1 Scope

This British Standard specifies requirements for the design, construction and performance of aluminium alloy windows and glazed doorsets, solid or thermally improved, intended to be installed vertically ($\pm 15^\circ$), including constituent materials and glazing.

It applies to windows and doorsets fabricated in a factory, which can be in single or multi-light form, in coupled assemblies where appropriate, of the following types:

a) windows:

- 1) hinged: side-hung (open in or out), top-hung (open in or out), bottom-hung (open in or out), tilt before turn or turn before tilt;
- 2) projecting: side-hung (open out or reversible) and top-hung (open out or reversible);
- 3) pivoted: horizontal and vertical (hung centrally or off-centre including reversible);
- 4) sliding: horizontal and vertical (including tilting-in sash to vertical);
- 5) fixed lights;
- 6) louvred: adjustable;

b) doorsets:

- 1) single leaf single-swing doors (open in or out) with or without side lights and top panels;
- 2) double leaf single-swing doors (open in or out) with or without side lights and top panels;
- 3) single track sliding doors;
- 4) single track sliding folding doors.

It is applicable to assemblies in which any frame member is not longer than 3 m. It does not apply to curtain walls that span across horizontal structural members of floors but is applicable to windows fitted within a curtain walling system.

It is not applicable to:

- 1) secondary windows applied to convert existing single windows into double or coupled windows;
- 2) windows with frames designed to be glazed with security glazing conforming to BS 5544, BS EN 356 or BS EN 1063;
- 3) commercial style single- or double-swing doorsets using floor springs or concealed overhead closers or suspended sliding doors with overhead operating mechanisms.

NOTE Guidance on the evaluation of conformity is given in Annex A. Guidance on durability and recycling is given in Annex B.

2 Normative references

The following referenced documents are indispensable for the application 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.

BS 3987, *Specification for anodic oxidation coatings on wrought aluminium for external architectural applications*

BS 4842, *Specification for liquid organic coatings for application to aluminium alloy extrusions, sheet and preformed sections for external architectural purposes, and for the finish on aluminium alloy extrusions, sheet and preformed sections coated with liquid organic coatings*

BS 6100-1 (BS ISO 6707-1), *Building and civil engineering – Vocabulary – Part 1: General terms*

BS 6100-6, *Building and civil engineering – Vocabulary – Part 6: Construction parts*

BS 6100-11, *Building and civil engineering – Vocabulary – Part 11: Performance characteristics, measurement and joints*

BS 6100-12, *Building and civil engineering – Vocabulary – Part 12: Plant, equipment and persons*

BS 6262 (all parts), *Glazing for buildings*

BS 6375-1, *Performance of windows and doors – Part 1: Classification for weathertightness and guidance on selection and specification*

BS 6375-2, *Performance of windows and doors – Part 2: Classification for operation and strength characteristics and guidance on selection and specification*

BS 6375-3, *Performance of windows and doors – Part 3: Classification for additional performance characteristics and guidance on selection and specification*

BS 6399-2, *Loading for buildings – Part 2: Code of practice for wind loads*

BS 6496, *Specification for powder organic coatings for application and stoving to aluminium alloy extrusions, sheet and preformed sections for external architectural purposes, and for the finish on aluminium alloy extrusions, sheet and preformed sections coated with powder organic coatings*

BS 8000-7, *Workmanship on building sites – Part 7: Code of practice for glazing*

BS EN 485-2:2007, *Aluminium and aluminium alloys – Sheet, strip and plate – Part 2: Mechanical properties*

BS EN 755-9:2008, *Aluminium and aluminium alloys – Extruded rod/bar, tube and profiles – Part 9: Profiles, tolerances on dimensions and form*

BS EN 1279 (all parts), *Glass in building – Insulating glass units*

BS EN 1670:2007, *Building hardware – Corrosion resistance – Requirements and test methods*

BS EN 12020-2:2008, *Aluminium and aluminium alloys – Extruded precision profiles in alloys EN AW-6060 and EN AW-6063 – Part 2: Tolerances on dimensions and form*