

Timber windows — Factory assembled windows of various types — Specification

ICS 91.060.50

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by Technical Committee B/538, Doors, windows, shutters, hardware and curtain walling, to Subcommittee B/538/1, Windows, upon which the following bodies were represented:

- Association of Builders' Hardware Manufacturers
- Association of Building Engineers
- British Blind and Shutter Association
- British Plastics Federation
- British Wood Preserving and Damp-proofing Association
- British Woodworking Federation
- Building Research Establishment (BRE)/LPC Laboratories
- Centre for Window and Cladding Technology
- Chartered Institute of Building
- Construction Fixings Association
- Consumer Policy Committee of BSI
- Council for Aluminium in Building
- Door and Shutter Manufacturers' Association
- Flat Glass Manufacturers' Association
- Glass and Glazing Federation
- Guild of Architectural Ironmongers
- Institute of Architectural Ironmongers
- Health and Safety Executive
- LHC Building Components and Services
- National House-building Council (NHBC)
- Office of the Deputy Prime Minister (ODPM) (represented by BRE)
- Police Scientific Development Branch
- Royal Institute of British Architects
- Scottish Office (Construction and Building)
- Security Facilities Executive
- Society of Chief Architects of Local Authorities
- Steel Window Association
- Timber Research and Development Association
- Co-opted member

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The following BSI references relate to the work on this British Standard:

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Foreword

This British Standard has been prepared by Subcommittee B/538/1. It supersedes BS 644-1:1989, BS 644-2:1958 and BS 644-3:1951 which are withdrawn.

This revision of BS 644 incorporates changes which have recently been made as a result of the withdrawal of British Standards which have been replaced by European Standards and also makes reference to enhanced security performance for timber windows as given in BS 7950.

Advisory notes on window ranges, recommendations for finishing of external joinery, guidance and recommendations for the storage, protection, installation and fixing of windows are given in annexes to this standard.

A series of European Standards for the testing and classification of windows, including timber windows, is currently being prepared by CEN Technical Committee CEN/TC 33. As this series will supersede some parts of this British Standard further changes may need to be made to this standard.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 17 and a back cover.

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1 Scope

This British Standard specifies requirements for materials (including timber preservation), profile design, workmanship, glazing, construction, safety, security, weathertightness performance, and operation and strength performance of factory assembled timber windows of the following types:

- a) hinged: side hung, top hung and bottom hung;
- b) projecting side hung (open out or reversible);
- c) projecting top hung (open out or reversible);
- d) pivoted: horizontal and vertical (hung centrally or off-centre, including reversible);
- e) sliding: horizontal and vertical;
- f) tilt and turn;
- g) fixed light;
- h) direct glazed.

This British Standard does not apply to windows supplied as kits for site assembly.

NOTE The timber windows covered by this British Standard may be treated with either opaque or non-opaque finishes. Some glazing and finishing operations may be carried out on site.

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 952-1, *Glass for glazing — Part 1: Classification*.

BS 952-2, *Glass for glazing — Part 2: Terminology for work on glass*.

BS 1186-2, *Timber for and workmanship in joinery — Part 2: Specification for workmanship*.

BS 1204, *Specification for type MR phenolic and aminoplastic synthetic resin adhesives for wood*.

BS 4255-1, *Rubber used in preformed gaskets for weather exclusion from buildings — Part 1: Specification for non-cellular gaskets*.

BS 5589:1989, *Code of practice for preservation of timber*.

BS 5713, *Specification for hermetically sealed flat double glazing units*.

BS 6100-1.0, *Glossary of building and civil engineering terms — Part 1: General and miscellaneous — Section 1.0: General*.

BS 6100-1.3.5, *Glossary of building and civil engineering terms — Part 1: General and miscellaneous — Section 1.3: Parts of construction works — Subsection 1.3.5: Doors, windows and openings*.

BS 6100-1.5.1, *Glossary of building and civil engineering terms — Part 1: General and miscellaneous — Section 1.5: Operations; associated plant and equipment — Subsection 1.5.1: Co-ordination of dimensions, tolerances and accuracy*.

BS 6100-1.6, *Glossary of building and civil engineering terms — Part 1: General and miscellaneous — Section 1.6: Persons*.

BS 6206, *Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings*.

BS 6262, *Code of practice for glazing for buildings*.

BS 6375-1:1989, *Performance of windows — Part 1: Classification for weathertightness (including guidance on selection and specification)*.

BS 6375-2, *Performance of windows — Part 2: Specification for operation and strength characteristics*.

BS 7479, *Method for salt spray corrosion tests in artificial atmospheres*. [ISO 9227]

BS 7950, *Specification for enhanced security performance of casement and tilt/turn windows for domestic applications*.

PD 6484, *Commentary on corrosion at bimetallic contacts and its alleviation.*

BS EN 204:2001, *Classification of thermoplastic wood adhesives for non-structural applications.*

BS EN 942, *Timber in joinery — General classification of timber quality.*

BS EN 1982, *Copper and copper alloys. Ingots and castings.*

BS EN 12165, *Copper and copper alloys — Wrought and unwrought forging stock.*

BS EN 12329, *Corrosion protection of metals — Electrodeposited coatings of zinc with supplementary treatment on iron or steel.*

BS EN 12330, *Corrosion protection of metals — Electrodeposited coatings of cadmium on iron or steel.*

BS EN 12420, *Copper and copper alloys — Forgings.*

3 Terms and definitions

For the purposes of this British Standard the terms and definitions given in BS 6100-1.0, BS 6100-1.3.5, BS 6100-1.5.1 and BS 6100-1.6 and the following apply.

3.1

casement

framed opening light that is hinged or pivoted

3.2

sash

framed opening light that slides

3.3

side hung casement

casement opening inwards or outwards that is hinged on one edge about a fixed vertical axis

3.4

projecting side hung casement

casement opening outwards in which the vertical axis is near to one side but moves during opening

3.5

top hung casement

casement opening outwards that is hinged on the top edge about a fixed horizontal axis

3.6

projecting top hung casement

casement opening outwards in which the horizontal axis is near to the top edge but moves during opening

3.7

bottom hung casement

casement opening inwards that is hinged on the bottom edge about a fixed horizontal axis

3.8

horizontal pivoted casement

casement that rotates about a fixed horizontal axis through the centre of its height

3.9

vertical pivoted casement

casement that rotates about a fixed vertical axis symmetrically or asymmetrically placed in the width of the window

3.10

side hung reversible casement

side hung casement opening outwards that can be turned and secured in the fully reversed position

3.11

top hung reversible casement

top hung casement opening outwards that can be turned and secured in the fully reversed position

3.12**tilt and turn casement**

casement with two modes of operation, bottom hung inward opening for normal ventilation and side hung inward opening for cleaning or emergency egress

3.13**vertical slider**

double hung sash window
window having sashes that slide vertically

3.14**horizontal slider**

window having sashes that slide horizontally

3.15**divided casement**

casement in two parts with one part a fixed light and having the opening portion closing directly against it

3.16**multi-light window**

window incorporating opening and/or fixed lights within one perimeter frame

3.17**composite window**

two or more windows joined to fill an opening

3.18**double window**

two separate windows superimposed in the same opening

3.19**weatherseal**

strip of resilient material designed to reduce air infiltration and water penetration

3.20**window fixing**

any item that is used to secure separate members of a window assembly to each other, to secure an item of hardware to a window member, or to secure a completed window assembly into the structure of a building

3.21**window hardware**

fittings attached to the window that are used to operate and/or secure it

3.22**fixed light**

light that does not open

3.23**direct glazed window**

window with glazing installed into the frame of the window

4 Abbreviations for window types and handing

For the purposes of this British Standard the following abbreviations apply for window types and handing.

TH = top hung	DC = divided casement	HS = horizontal slider
SH = side hung	TT = tilt and turn	VS = vertical slider
BH = bottom hung	HP = horizontal pivot	FL = fixed light
PSH = projecting side hung	VP = vertical pivot	DG = direct glazed
PTH = projecting top hung		

NOTE Window types and examples of handing are shown in Figure 1.