

Performance of windows and doors —

Part 1: Classification for weathertightness and guidance on selection and 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 Manufacture
Association of Building Engineers
British Blind and Shutter Association
British Plastics Federation
British Wood Preserving and Damp-Proofing
British Woodworking Federation
British Research Establishment
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
Health and Safety Executive
Institute of Architectural Ironmongers
LHC Building Components and Services
National House-Building Council
ODPM
Police Scientific Development Branch
Royal Institute of British Architects
Scottish Office — Construction and Building
Society of Chief Architects in Local Authorities (SCALA)
Steel Window Association
Timber Research and Development Association
Co-opted members

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Foreword

This part of BS 6375 has been prepared by B/538. It supersedes BS 6375-1:1989 which is withdrawn. This revision has been prepared to provide performance based classifications and guidance on selection related to wind resistance, as described in BS EN 1026, BS EN 1027, BS EN 12207, BS EN 12208, BS EN 12210 and BS EN 12211, for UK requirements.

Additional guidance is necessary as the weather performance European Standards provide methods of test and classifications, without guidance for their application. The classifications and recommendations given in this standard are drawn from 30 years of development of window performance standards from DD 4:1971 which became BS 6375-1 (1983 and 1989).

The revision takes into consideration both window and door requirements and adds weather tightness performance for doors based on previous UK development work of DD 171:1987 and PAS 023-1:1999.

This standard considers the wind load assessment based on BS 6399-2. The UK exposure categories of the previous standard have been retained.

The deflection limit has been set at 1/150 in accordance with Class A of BS EN 12210.

This part of BS 6375 is one part of a two part standard the other part being:

BS 6375-2:1987, *Performance of windows — Part 2: Specification for operation and strength characteristics*.

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

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 11 and a back cover.

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1 Scope

This part of BS 6375 specifies the exposure categories related to test pressure levels for air permeability, watertightness and wind resistance for external windows and doors. It is applicable to all types of vertical windows and doors, and includes windows in which the opening lights are not fully framed, e.g. adjustable glass louvres.

The standard excludes patent glazing (see Note) and curtain walls that span across horizontal structural members of floors but includes the opening lights within a vertical patent glazing or curtain walling system.

An abbreviated method for calculating wind loading is given in Annex A. This takes into account factors that allow selection and specification of the appropriate classification.

NOTE Recommendations for the design and installation of patent glazing are given in BS 5516.

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 6399-2:1997, *Loading for buildings – Part 2: Code of practice for wind loads*.

BS EN 1026, *Windows and doors – Air permeability – Test method*.

BS EN 1027:2000, *Windows and doors – Watertightness – Test method*.

BS EN 12207, *Windows and doors – Air permeability – Classification*.

BS EN 12208, *Windows and doors – Watertightness – Classification*.

BS EN 12210, *Windows and doors – Resistance to wind load – Classification*.

BS EN 12211, *Windows and doors – Resistance to wind load – Test method*.

3 Terms and definitions

For the purposes of this part of BS 6375, the following terms and definitions apply.

3.1

wind load

peak gust wind pressure that can be expected on a surface of a building window or door component

3.2

ventilation device

ventilator other than an opening light incorporated in a window or door

NOTE The “permanent” type provides continuous ventilation. The “controlled” type is adjusted to provide a range of ventilation.

3.3

water penetration

continuous or repeated wetting of the internal surface of the test specimen or parts which are not designed to be wetted when water drains back to external face

NOTE Retention of water within the window or door system is not defined as leakage.

3.4

weathertightness

performance in respect of air permeability, watertightness and wind resistance

3.5

design height (H)

maximum height of wall in which the window or door occurs

NOTE In the case of a dormer window the building ridge height.