

News & Facts

July 2010

Bi-Fold Door Testing

How secure and weatherproof are your Bi-Fold Doors?

The marked trend of incorporating Bi-Fold doors in domestic properties continues to rise at a rapid rate. The benefits of allowing more light into the house and 'bringing ' the garden into the living space explains this increasing trendBUT what about the security and weather performance of Bi-Fold doors?

Bi-Fold doors have multiple door leaves which could be vulnerable to burglar attack and maybe susceptible to air and water ingress due to the numerous 'joints' that are exposed to the elements.

There is currently no British or European standard for security and weather performance of Bi-Fold doors which must be a concern to the selling organisations, Police, Insurance Companies and indeed the owner of the property.

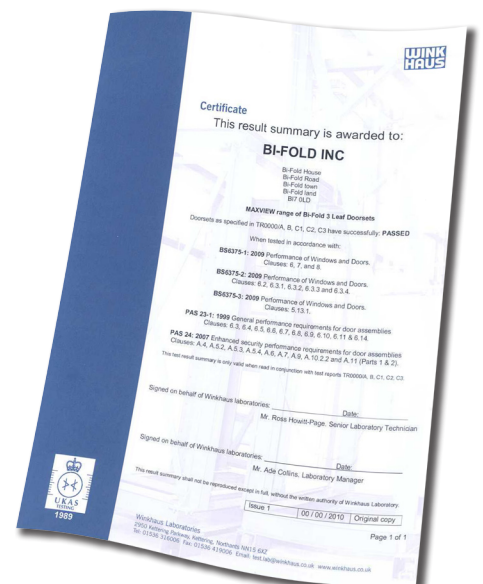
As a UKAS accredited Test Laboratory Winkhaus have worked with the BSI, SBD and Test House Studies Group (THSG) to create a draft test standard based on the methodology of PAS23, PAS24 and BS6375.

On successful completion of the test a full test report and Test certificate will be issued which will be a major sales aid for forward thinking manufacturers who want to provide independent evidence of their doors performance.

For a special short term promotion period the full test report and test result summary (Cert) will cost £1995 and will be issued within 48 hours of successful test completion.

Don't be the last to achieve a successful Bi-Fold Door test, contact the Winkhaus test laboratory on 01536 316006 or email test.lab@winkhaus.co.uk.

Outlined overleaf is the test methodology that has been based on PAS23, PAS24, BS6375-1, 2 & 3.



Winkhaus Laboratories can provide a UKAS accredited test to evaluate the durability and performance in use of Bi-Folding doorsets.

PAS 23-1: 1999 Incorporating Amendments Nos.1, 2, 3 & 4 and Corrigendum No.1

General performance requirements for door assemblies.

Part 1: single leaf, external door assemblies to dwellings.

Clause 6.11	Cyclic operation test	Opening and closing regime, 50,000 cycles on the master leaf.
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PAS24: 2007 + A1: 2009 Enhanced security performance requirements for door assemblies.

Part 1: Single and double leaf, hinged external door assemblies to dwellings.

Clause A.4	Manipulation test	Vulnerability in the design
Clause A.5.2	Infill manual test	Attempt to remove gaskets, beads, security devices etc.
Clause A.5.3	Mechanical test - Infill	Assess the infill retention system in an attempt to gain entry
Clause A.6	Mechanical loading test	Resistance to a sequence of loading without creating an entry
Clause A.7	Manual check test	Explore vulnerability not covered by Clauses A.4 & A6
Clause A.9	Soft body impact test (30Kg)	Assess the door resistance to impacts from a soft body impactor
Clause A.10.2.2	Hard body impact test (50Kg)	Assess resistance to hard body impact
Clause A.11	Security hardware and cylinder test (Parts 1 and 2)	The object of this test is to assess the door furniture, hardware and cylinder resistance to manual attack

BS6375-1: 2009 Performance of Windows and Doors.

Part 1: Classification for weather tightness and guidance on selection and specification.

Winkhaus Laboratories can provide a UKAS accredited test to evaluate the weather tightness performance of Bi-Folding doorsets. (BS6375-1 does not exclude Bi-Folding doorsets).

BS6375-2: 2009 Performance of Windows and Doors.

Part 2: Classification for operation and strength characteristics and guidance on selection and specification.

Winkhaus Laboratories can provide a UKAS accredited test (As of June 2010) which will evaluate the durability and performance in use.

Clause 6.2	Operating forces	Measurement of the hardware forces
Clause 6.3.1	Vertical load	Apply a specified load to the top corner of a single leaf
Clause 6.3.2	Static torsion	Apply a specified load to the bottom corner of a single leaf
Clause 6.3.3	Soft body impact	Assess the door resistance to impacts from a soft body impactor
Clause 6.3.4	Hard body impact	Assess resistance to hard body impact

BS6375-3: 2009 Performance of Windows and Doors.

Part 3: Classification for additional performance characteristics and guidance on selection and specification.

Winkhaus Laboratories can provide a UKAS accredited test (As of June 2010) which will evaluate any vulnerabilities within the test sample.

Clause 5.13.1	Basic security	Manual attack to defeat the glazing and locking system
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Please note that the size of the samples required for PAS24 clauses A.9 & A.10.2.2 and BS6375-2 clause 6.3.3 should have an overall width not exceeding 1700mm and 2100mm high.