



Windows, external glazed, timber and composite doors—Methods of test

Part 1: Test sequence, sampling and test methods



This Australian Standard® was prepared by Committee BD-021, Doors and Windows. It was approved on behalf of the Council of Standards Australia on 14 October 2016. This Standard was published on 1 December 2016.

The following are represented on Committee BD-021:

- Australasian Institute of Surface Finishing
 - Australian Building Codes Board
 - Australian Glass and Glazing Association
 - Australian Industry Group
 - Australian Window Association
 - Building Research Association of New Zealand
 - CSIRO
 - Glass Association of New Zealand
 - Housing Industry Association
 - Master Builders Australia
 - Master Locksmiths Association of Australasia
 - National Association of Testing Authorities Australia
 - New Zealand Joinery Manufacturers Federation
 - Window and Door Industry Council
 - Window Association of New Zealand
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Australian Standard®

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composite doors—Methods of test**

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AS 4420.4—1996, AS 4420.5—1996 and AS 4420.6—1996.
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee BD-021, Doors and Windows, to supersede the following documents:

- (a) AS 4420.0—1996, *Windows—Methods of test*, Part 0: *General introduction and list of methods*.
- (b) AS 4420.1—1996, *Windows—Methods of test*, Method 1: *Test specimen, preparation for tests, and test sequence*.
- (c) AS 4420.2—1996, *Windows—Methods of test*, Method 2: *Deflection test*.
- (d) AS 4420.3—1996, *Windows—Methods of test*, Method 3: *Operating force test*.
- (e) AS 4420.4—1996, *Windows—Methods of test*, Method 4: *Air infiltration test*.
- (f) AS 4420.5—1996, *Windows—Methods of test*, Method 5: *Water penetration resistance test*.
- (g) AS 4420.6—1996, *Windows—Methods of test*, Method 6: *Ultimate strength test*.

A1 | Amendment No. 1 to this Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MS-049, Retroflective Devices. As a consequence of Amendment No. 1, which is published as an Australian-only amendment, this Standard will be redesignated from AS/NZS 4420.1:2016 to AS 4420.1:2016.

This Standard incorporates Amendment No. 1 (October 2019). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

This Standard is referenced by AS 2047—2014 and NZS 4211—2008 to provide uniform direction for the essential requirements and methods to test for windows designed for installation in all classes of buildings.

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STANDARDS AUSTRALIA

Australian Standard

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1 SCOPE AND GENERAL**1.1 Scope**

This Standard sets out methods of test for determining the following performance aspects of windows, external glazed, timber and composite doors designed for installation in all classes of buildings:

- (a) Deflection test.
- (b) Operating force test.
- (c) Air infiltration test.
- (d) Water penetration resistance test.
- (e) Ultimate strength test.

This Standard also addresses the requirements for test specimens, the methods of preparation, and the test sequence.

The objective of this Standard is to provide window designers and manufacturers with the essential requirements and deemed-to-comply solutions to test windows designed for installation in all classes of buildings.

During the preparation of the methods of test, cognizance was taken of the latest test information and performance criteria in Australia, New Zealand and overseas.

1.2 Normative references

The following documents are referred to in this Standard:

AS	
2047	Windows and external glazed doors in buildings
NZS	
4211	Specification for performance of windows
ASTM	
E331	Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference

1.3 Definitions

A1 | For the purpose of this Standard, the definitions given in AS 2047, and the following, apply:

1.3.1 Shall

Indicates that a statement is mandatory.

1.3.2 Should

Indicates a recommendation.