

Australian/New Zealand Standard™

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

**Part 1: Test sequence, sampling and
test methods**



AS/NZS 4420.1:2016

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee BD-021, Doors and Windows. It was approved on behalf of the Council of Standards Australia on 14 October 2016 and by the New Zealand Standards Approval Board on 5 October 2016.

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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
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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*.

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/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Windows, external glazed, timber and composite doors—Methods of test****Part 1: Test sequence, sampling and test methods****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

For the purpose of this Standard, the definitions in AS 2047 apply for Australia and the definitions in NZS 4211 apply for New Zealand.

2 TEST SPECIMEN, PREPARATION FOR TESTS, AND TEST SEQUENCE**2.1 Scope**

This Clause specifies the requirements for a test specimen, the methods of its preparation for test, and the test sequence.