

Dear Customer

Please find enclosed Amendment 9, effective 1 January 2017, to the Acceptable Solution and Verification Method for Clause B2 Durability of the New Zealand Building Code. The previous amendment to B2 (Amendment 8) was in February 2014.

Section	Old B2	January 2017 Amendment 9
Title pages	Remove title page and document history pages 1-2B	Replace with new title page and document history pages 1-2B
Contents	Remove page 5/6	Replace with new page 5/6
References	Remove page 7/8	Replace with new page 7/8
B2/AS1	Remove page 15F/16	Replace with new page 15F/16
Index	Remove page 23/24	Replace with new page 23/24



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

Acceptable Solutions and Verification Methods

For New Zealand Building Code Clause
B2 Durability



Status of Verification Methods and Acceptable Solutions

Verification Methods and Acceptable Solutions are prepared by the Ministry of Business, Innovation and Employment in accordance with section 22 of the Building Act 2004. Verification Methods and Acceptable Solutions are for use in establishing compliance with the New Zealand Building Code.

A person who complies with a Verification Method or Acceptable Solution will be treated as having complied with the provisions of the Building Code to which the Verification Method or Acceptable Solution relates. However, using a Verification Method or Acceptable Solution is only one method of complying with the Building Code. There may be alternative ways to comply.

Users should make themselves familiar with the preface to the New Zealand Building Code Handbook, which describes the status of Verification Methods and Acceptable Solutions and explains alternative methods of achieving compliance.

Defined words (italicised in the text) and classified uses are explained in Clauses A1 and A2 of the Building Code and in the Definitions at the start of this document.

Enquiries about the content of this document should be directed to:



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

Ministry of Business, Innovation and Employment
PO Box 1473, Wellington 6140
Telephone 0800 242 243
Email: info@building.govt.nz

**Verification Methods and Acceptable Solutions
are available from www.building.govt.nz**

New Zealand Government

© Ministry of Business, Innovation and Employment 2016

This document is protected by Crown copyright, unless indicated otherwise. The Ministry of Business, Innovation and Employment administers the copyright in this document. You may use and reproduce this document for your personal use or for the purposes of your business provided you reproduce the document accurately and not in an inappropriate or misleading context. You may not distribute this document to others or reproduce it for sale or profit.

The Ministry of Business, Innovation and Employment owns or has licences to use all images and trademarks in this document. You must not use or reproduce images and trademarks featured in this document for any purpose (except as part of an accurate reproduction of this document) unless you first obtain the written permission of the Ministry of Business, Innovation and Employment.

Document Status

The most recent version of this document (Amendment 9), as detailed in the Document History, is approved by the Chief Executive of the Ministry of Business, Innovation and Employment. It is effective from 1 January 2017 and supersedes all previous versions of this document.

The previous version of this document (Amendment 8) will cease to have effect on 30 May 2017.

People using this document should check for amendments on a regular basis. The Ministry of Business, Innovation and Employment may amend any part of any Verification Method or Acceptable Solution at any time. Up-to-date versions of Verification Methods and Acceptable Solutions are available from www.building.govt.nz

B2: Document History			
	Date	Alterations	
First published	July 1992		
Amendment 1	September 1993	p. 3, Table 1	
Second Edition	28 February 1998	Document revised – second edition issued	
Amendment 2	1 December 2000	p. ii, Document History p. v, Contents p. vi, References	p. 5, 3.2.2, 3.3, 3.4 p. 9, Index
Amendment 3	1 July 2001	p. 2, Document History, Status p. 7, References	p. 8, 5.0.1
Amendment 4	1 April 2004	p. 2, Document History p. 7, References pp. 9–10, Definitions	p. 15, 3.2.1 Comment pp. 17–22 Table 1 p. 23 Index
Amendment 5	1 April 2004	p. 7, References p. 9, Definitions	p. 15, 3.2.1, 3.2.2, 3.2.3
Amendment 5 regarding timber treatment is subject to a transitional provision.			
Reprinted incorporating Amendments 3, 4 and 5	April 2004		
Amendment 6	Effective 30 September 2010 until 1 July 2011	p. 2, Document History, Status p. 5, Contents p. 7, References	pp. 9–10, Definitions pp. 13–15, B2/AS1 1.1, 3.1.1, 3.2.1, 3.2.2
Reprinted incorporating Amendment 6	30 June 2010		
Amendment 7	Effective 4 April 2011 until 14 August 2014	p. 2, Document History, Status p. 5, Contents	p. 7, References pp. 15–15F, 3.2.1, 3.2.2, 3.2.3
Amendment 8	14 February 2014 until 30 May 2017	p. 2A, Document History, Status p. 5, Contents p. 7, References	p. 9, Definitions pp. 13, 15, 15D–15F B2/AS1 3.2, 3.2.2, 3.2.2.3, 3.2.3, 3.2.3.1, 3.2.3.2,
Amendment 9	Effective 1 January 2017	p. 5 Contents p. 7 References	p. 15F B2/AS1 3.5 p. 23 Index
Note: Page numbers relate to the document at the time of Amendment and may not match page numbers in current document.			

Contents

	Page
References	7
Definitions	9
Verification Method B2/VM1	11
1.0 Durability Evaluation	11
1.1 In-service history	11
1.2 Laboratory testing	11
1.3 Similar materials	11
Acceptable Solution B2/AS1	13
1.0 Durability Applications	13
1.1 Acceptable Solutions and Verification Methods	13
1.2 Assessing required durability	13
1.3 Examples of durability requirements	14
2.0 Maintenance	14
2.1 Normal maintenance	14
2.2 Scheduled maintenance	14
3.0 Generic Materials	14
3.1 Concrete	14
3.2 Timber and wood-based building products	15
3.3 Solid plastering	15F
3.4 Earth buildings	15F
3.5 Insulating Glass Units	15F
Index	23

Amends
6 and 8

Amend 8
Feb 2014

Amend 7
Apr 2011

Amend 2
Dec 2000

Amend 9
Jan 2017

References

For the purposes of New Zealand Building Code (NZBC) compliance, the Standards and documents referenced in this Verification Method and Acceptable Solution (primary reference documents) must be the editions, along with their specific amendments, listed below. Where these primary reference documents refer to other Standards or documents (secondary reference documents), which in turn may also refer to other Standards or documents, and so on (lower-order reference documents), then the version in effect at the date of publication of this Verification Method and Acceptable Solution must be used.

Amend 7
Apr 2011Amend 6
Sep 2010

Standards New Zealand

NZS 3101:- Concrete structures standard
Part 1: 2006 The design of concrete structures
Amend: 1, 2

Amend 7
Apr 2011Amend 5
Apr 2004

NZS 3602:-
Part 1: 2003 Timber and wood-based products for use in building

Amend 3
Jul 2001Amends
2 and 8

NZS 3604: 2011 Timber framed buildings

Amends
7 and 8

NZS 3640: 2003 Chemical Preservation of round and sawn timber
Amend: 1, 2, 3, 4, 5

Amend 9
Jan 2017

NZS 4223:
Part 2: 2016 Glazing in buildings
Insulating glass units

Amend 6
Sep 2010

NZS 4251:- Solid plastering
Part 1: 2007 Cement plaster for walls, ceilings and soffits

NZS 4297: 1998 Engineering design for earth buildings

Amend 2
Dec 2000

NZS 4299: 1998 Earth buildings not requiring specific design
Amend: 1

Where Quoted

AS1 3.1.1

AS1 3.2.1, 3.2.2

Amend 5
Apr 2004

AS1 3.2.3

Amend 5
Apr 2004AS1 3.2.1, 3.2.2.1,
3.2.3

AS1 3.5

AS1 3.3.1

AS1 3.4.1

AS1 3.4.1

NOTE -

- (1) Etching and permanent laser marking are acceptable means for marking insulating glass units. Externally affixed adhesive labels are not acceptable.
- (2) Additional marking may be used by the manufacturer.”

Amend 9
Jan 2017

Amends
7 and 8

3.3 Solid plastering

3.3.1 NZS 4251: Part 1 is an acceptable solution for meeting the durability requirements of cement plasters for walls, ceilings and soffits within its scope.

3.4 Earth buildings

3.4.1 NZS 4297 and NZS 4299 are acceptable solutions for meeting the durability requirements of earth *buildings* within their scope.

Amend 2
Dec 2000

3.5 Insulating Glass Units

3.5.1 NZS 4223.2 is an Acceptable Solution for meeting the durability requirements of insulating glass units, within its scope.

3.5.2 Modifications to NZS 4223.2

Delete clause 5.3.

Replace with

“5.3 Marking

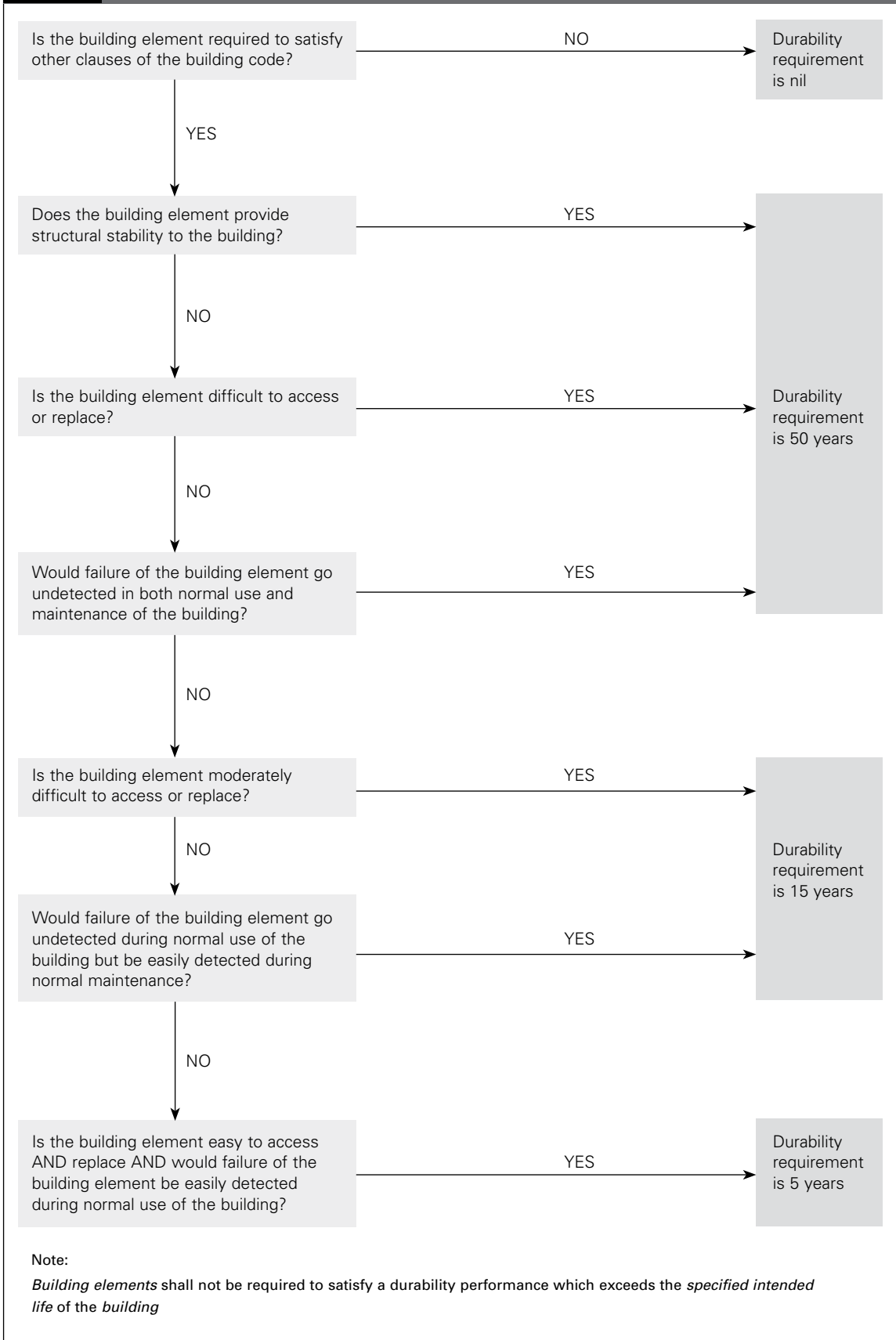
Insulating glass units shall be permanently and clearly marked. As a minimum, marking shall include the following:

- (a) The name or registered trademark of the manufacturer or supplier;
- (b) The date of manufacture (use the year as the minimum), and
- (c) Complies with NZS 4223.2:2016.

Marking shall be visible after the IGU has been installed, and must be legible and durable for the life of the unit.

Amend 9
Jan 2017

Figure 1: Assessment of Durability Requirement
Paragraph 1.2.2



Index B2/VM1 & AS1

All references to Verification Methods and Acceptable Solutions are preceded by **VM** or **AS** respectively.

	Concrete	AS1 3.1.1
	Durability evaluation	VM1 1.0, AS1 1.2, Figure 1
Amend 4 Apr 2004	examples of requirement	AS1 1.3.1, Table 1
	generic materials	AS1 3.0
	in-service history	VM1 1.1
	laboratory testing	VM1 1.2
	similar materials	VM1 1.3
Amend 2 Dec 2000	Earth buildings	AS1 3.4
	Ease of access and replacement	AS1 1.2.1
Amend 9 Jan 2017	Insulating Glass Units	AS1 3.5
	Maintenance	AS1 2.0
	normal	AS1 2.1
	scheduled	AS1 2.2
Amend 2 Dec 2000	Solid plastering	AS1 3.3
	Timber	AS1 3.2

