

Code of practice for
MASONRY CONSTRUCTION:
MATERIALS AND WORKMANSHIP

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AMENDMENT No. 2

May 1993

EXPLANATORY NOTE - Amendment No. 2 clarifies the testing requirements for wall ties. It does not make changes to the technical content of the Standard.

APPROVAL

Amendment No. 2 was approved on 29 April 1993 by the Standards Council to be an amendment to NZS 4210:1989 pursuant to the provisions of section 10 of the Standards Act 1988.

(Amendment No. 2, May 1993)

3.5.1

Delete the clause and substitute:

"The minimum strength, stiffness and ductility of flexible and stiff veneer ties, when axially loaded in accordance with Appendix 3.C, shall not be less than the applicable values given in table 3.5.1 for each particular service classification of duty.

"Stiff veneer ties are required to perform a similar function to flexible ties except that they are required to restrain horizontal differential in-plane movements between the veneer and the structural wall (see 3.5.2)."

(Amendment No. 2, May 1993)

Table 3.5.1

In the headings to the third and fourth columns, add the unit "N".

In the heading to the fifth column, add the unit "mm".

(Amendment No. 2, May 1993)

Table 3.8.1

Delete the table and substitute the table given on page 2 of this amendment.

(Amendment No. 2, May 1993)

APPENDIX 3.C

3.C6.2.2

In line 4 of item (e), delete "100 mm" and substitute "10 mm".

(Amendment No. 2, May 1993)

3.C8.1

Re-number the clause "3.C8.2".

In item (e), add at the beginning of the sentence: "For flexible ties,"

(Amendment No. 2, May 1993)

C3.C8.1

Re-number the commentary clause "C3.C8.2".

(Amendment No. 2, May 1993)

3.C8.2

Re-number the clause "3.C8.1".

(Amendment No. 2, May 1993)

C3.C8.2

Re-number the commentary clause "C3.C8.1".

Delete the first line and substitute:

"Stiff ties should have a horizontal in-plane stiffness and an axial ...".

(Amendment No. 2, May 1993)

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Table 3.8.1
SCHEDULE FOR ASSESSMENT OF COMPLIANCE

Characteristic	Specification	Test method	Minimum no. of specimens in test sample	
			Stiff ties	Flexible ties
Resistance to water transfer	Clause 3.5.4	Appendix 3.B	5	5
Horizontal in-plane stiffness of stiff veneer ties	Clause 3.5.2	Appendix 3.C	6	–
Horizontal in-plane ductility and cyclic strength of stiff veneer ties*	Clause 3.5.2	Appendix 3.C	6	–
Axial stiffness and strength in tension	Clauses 3.5.1 3.5.3	Appendix 3.C	6	12†
Axial stiffness and strength in compression	Clauses 3.5.1 3.5.3	Appendix 3.C	6	12†
Axial ductility and cyclic strength	Clauses 3.5.1 3.5.3	Appendix 3.C	6	12†
Corrosion resistance	Clause 3.3.1	–	–	–

* Stiff veneer ties tested for horizontal in-plane ductility and cyclic strength shall be used subsequently for the axial stiffness and strength test.
† Flexible ties require 6 samples each to be tested in both the displaced and the undisplaced positions.

(Amendment No. 2, May 1993)

3.C9.2
Delete the first line and **substitute**:

“The stiffness of any wall tie, Y, in kilonewtons per ...”.

(Amendment No. 2, May 1993)

3.C10.1
In line 9, **delete** “n>6” and **substitute** “n≥ 6”.

(Amendment No. 2, May 1993)

3.C10.2
In line 10, **delete** “n>6” and **substitute** “n≥ 6”.

(Amendment No. 2, May 1993)

3.C11.1
In item (h), **delete** the first line and **substitute** “In the case of flexible veneer ties repeat (d) and (e)”.

(Amendment No. 2, May 1993)

3.C14
In line 9, **delete** “n>6” and **substitute** “n≥ 6”.

(Amendment No. 2, May 1993)

3.C15

Delete items (d) and (e) and **substitute** the following:

"(d) For each type of tie, flexible or stiff –

- (i) Horizontal in-plane stiffness and strength (stiff veneer ties only)
- (ii) Horizontal in-plane ductility and cyclic strength (stiff veneer ties only)
- (iii) Axial stiffness and strength in tension of wall ties
- (iv) Axial stiffness and strength in compression of wall ties
- (v) Axial ductility and cyclic strength of wall ties

(e) For the lot of each type of tie, flexible or stiff–

- (i) Horizontal in-plane characteristic stiffness and strength (stiff veneer ties only)
- (ii) Characteristic horizontal in-plane ductility and cyclic strength (stiff veneer ties only)."
- (iii) Characteristic axial stiffness and strength in tension of wall ties
- (iv) Characteristic axial stiffness and strength in compression of wall ties
- (v) Characteristic axial ductility and cyclic strength of wall ties

----- (Amendment No. 2, May 1993)