

## TIMBER AND WOOD-BASED PRODUCTS FOR USE IN BUILDING

## AMENDMENT No. 1

August 1996

## CORRECTION

**C105.5** (page 13)In paragraph 2, line 3, **delete** 109.4.3 and **substitute** 109.2.1.

(Amendment No. 1, August 1996)

**Table 1 – Building components requiring a 50 year durability performance (page 24)****Delete** table 1A and table 1B and **substitute** new table 1A and 1B.**Table 1 – Building components requiring a 50 year durability performance<sup>(1)</sup>**

Building components	Species or product	Grade or Standard ref.	In-service moisture range	Requires treatment	Level of treatment to MP 3640	See clause reference
A Members in contact with the ground (see section 106)						
Building piles	Pinus species and all other treatable species (Refer to NZTPC Timber Preservation Quality Manual)	NZS 3605	Not limited	Yes	H5	106.1
Plywood and treated timber frame foundations		BRANZ P43		Yes	H5	104.2 106.3
Crib walling		NZS 3605		Yes	H5	106.1
Sawn poles				Yes	H5	
House poles				Yes	H5	
Retaining walls: Uprights				Yes	H5	
Horizontal members				Yes	H4	
B Members exposed to exterior weather conditions and dampness (see section 107)						
Laminated beams	Pinus species	NZS 3606	Not limited	Yes	H3 or H4 <sup>(2)</sup>	104.4
Posts sawn, bearers, beams, floor joists, rafters, guardrails, stair components	Radiata pine	No.1 Framing		Yes	H3	107.1
Cladding as wall bracing	Plywood	AS/NZS 2269	20 % or less	Yes	H3	107.2
	Wood-based products <sup>(3)</sup>		18 % or less	Yes	H3	104.3
Sarking and framing not protected from solar driven moisture through absorbent cladding materials exposed to the weather	Plywood	AS/NZS 2269	20 % or less	Yes	H3	105.1
	Radiata pine	No. 1 Framing		Yes	H3	109.7
NOTE –						
(1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table.						
(2) Laminated timber beams may be treated up to H4 after manufacture.						
(3) Wood-based products must have a proven durability performance against dampness.						

(Amendment No. 1, August 1996)

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**Table 1 (continued) – Building components requiring a 50 year durability performance (page 25)**

Delete table 1C and substitute new table 1C.

**Table 1 (continued) – Building components requiring a 50 year durability performance<sup>(1)</sup>**

Building components	Species or product	Grade or Standard ref.	In-service moisture range	Requires treatment	Level of treatment to MP 3640	See clause reference		
C Members protected from the weather but exposed to ground atmosphere (see section 108)								
Jackstuds, subfloor braces, bearers, wall plates, floor joists to the subfloor, blocking etc., subfloor wall studs, walings and battens, wall studs and noggs, diagonal boards	Radiata pine	No.1 Framing	20 % or less	Yes	H1	105.1 108		
	Corsican pine	No.1 Framing		Yes	H1			
	Douglas fir	No.1 Framing		No				
	Larch	No.1 Framing		No				
	Cypress species <sup>(2)</sup>	No.1 Framing sapwood		Yes	H1			
	Cypress species <sup>(2)</sup>	No.1 Framing heart		No				
	Rimu	Building sapwood		Yes	H1			
	Rimu	Building heart		No				
	Matai	Building sapwood		Yes	H1			
	Matai	Building heart		No				
Plywood bracing	Pinus species	AS/NZS 2269	18 % or less	Yes	H1	108.4		
Interior flooring	Plywood	AS/NZS 2269	18 % or less	No <sup>(4)</sup>		203		
	Particleboard and other wood-based products <sup>(3)</sup>	AS/NZS 1859.1 AS/NZS 1859.2 AS/NZS 4266		No <sup>(4)</sup>		104.3 108.2 108.3		
		Pinus species			Dressing	Yes	H1	105.1 205.14
		Cypress species <sup>(2)</sup>			Dressing sapwood	Yes	H1	
	Cypress species <sup>(2)</sup>	Dressing heart		No				
	Matai	Dressing sapwood		Yes	H1			
	Matai	Dressing heart		No				
	Rimu	Dressing sapwood		Yes	H1			
	Rimu	Dressing heart		No				
	Eucalyptus species	Dressing		No				
	Tawa	Dressing		Yes	H1			

NOTE –  
(1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table.  
(2) Cypress species include Cupressus macrocarpa (macrocarpa), C. lusitanica (Mexican cypress) and Chamaecyparis lawsoniana (Lawson's cypress). Refer to NZS 3621.  
(3) Wood-based products must have a proven durability performance against dampness.  
(4) In wet areas where the maintenance of impervious coverings is in question, H3 treated timber or plywood shall be used.

(Amendment No. 1, August 1996)

**Table 1 (continued) – Building components requiring a 50 year durability performance (page 26)**

Delete table 1D and substitute new table 1D.

**Table 1 (continued) – Building components requiring a 50 year durability performance<sup>(1)</sup>**

Building components	Species	Grade or Standard ref.	In-service moisture range	Requires treatment	Level of treatment to MP 3640	See clause reference
<b>D Members protected from the weather and in dry conditions and not exposed to ground atmosphere (see section 109)</b>						
Plates, loadbearing studs, floor joists, lintels, timber braces, ceiling joists, ceiling runners, ceiling battens <sup>(5)</sup> , roof trusses, rafters, structural sarking, purlins and tile battens <sup>(5)</sup> , eaves bearers, outriggers, laminated beams	Radiata pine	No.1 Framing	20 % or less	Yes	H1	105.1 109 205
	Corsican pine	No.1 Framing		Yes	H1	
	Douglas fir	No.1 Framing		No		
	Larch	No.1 Framing		No		
	Cypress species <sup>(2)</sup>	No.1 Framing sapwood		Yes	H1	
	Cypress species <sup>(2)</sup>	No.1 Framing heart		No		
	Rimu	Building sapwood		Yes	H1	
	Rimu	Building heart		No		
	Matai	Building sapwood		Yes	H1	
	Matai	Building heart		No		
	Kiln dried and gauged Radiata pine or Corsican pine	F5 or No. 1 Framing	18 % or less	No		105.5 C105.5
Wall bracing	Plywood	AS/NZS 2269	18 % or less	No		108.1
	Particleboard and wood-based products	Refer to NZS 3604 Cl. K4		No		108.4
Interior flooring	Plywood	AS/NZS 2269	18 % or less	No <sup>(4)</sup>		109.3
	Particleboard and wood-based products <sup>(3)</sup>	AS/NZS 1859		No <sup>(4)</sup>		109.4
	Pinus species	Dressing	16 % or less	Yes	H1	105.1 109.4 205.14
	Cypress species <sup>(2)</sup>	Dressing sapwood		Yes	H1	
	Cypress species <sup>(2)</sup>	Dressing heart		No		
	Matai	Dressing sapwood		Yes	H1	
	Matai	Dressing heart		No		
	Rimu	Dressing sapwood		Yes	H1	
	Rimu	Dressing heart		No		
	Beech- silver,red,hard.	Dressing sapwood		Yes	H1	
	Beech- silver,red,hard.	Dressing heart		No		
	Eucalyptus species	Dressing sapwood		Yes	H1	
	Eucalyptus species	Dressing heart		No		
	Tawa	Dressing		Yes	H1	
Non-loadbearing studs in walls containing bracing noggs or dwangs	Radiata pine	No.2 Framing	20 % or less	Yes	H1	105.1
	Corsican pine	No.2 Framing		Yes	H1	
	Douglas fir	No.2 Framing		No		
	Larch	No.2 Framing		No		
	Cypress species <sup>(2)</sup>	No.2 Framing		No		
	Matai	Dressing sapwood		Yes	H1	
	Matai	Dressing heart		No		
	Rimu	Dressing sapwood		Yes	H1	
	Rimu	Dressing heart		No		
	Kiln dried and gauged radiata pine or Corsican pine	F4 or No.2 Framing	18 % or less	No		105.5 C105.5

**NOTE –**

(1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table.

(2) Cypress species include Cupressus macrocarpa (macrocarpa), C. lusitanica (Mexican cypress) and Chamaecyparis lawsoniana (Lawson's cypress). Refer to NZS 3621.

(3) Wood-based products must have a proven durability performance against dampness.

(4) In wet areas where the maintenance of impervious coverings is in question, H3 treated timber or plywood shall be used.

(5) Ceiling and roof battens may be of other grades providing they can be shown to comply with the loading requirements of the New Zealand Building Code.

(Amendment No. 1, August 1996)

**Table 2 – Building components requiring a 15 year durability performance (page 27)**

Delete table 2A and substitute new table 2A.

**Table 2 – Building components requiring a 15 year durability performance<sup>(1)</sup>**

Building components	Species or product	Grade or Standard ref.	In-service moisture range	Requires treatment	Level of treatment to MP 3640	See clause reference
A Members exposed to exterior weather conditions and dampness (see section 110)						
Weatherboards which are horizontal, base battens, fascia, barge and coverboards and plywood cladding all with a 3 coat paint finish	Pinus species	Dressing	18 % or less	Yes	H1	105.1 110.2.3 110.2.5
	Larch	Dressing heart		No		
	Cypress species <sup>(2)</sup>	Dressing sapwood		Yes	H1	
	Cypress species <sup>(2)</sup>	Dressing heart		No		
	Redwood	Dressing heart		No		
	Western red cedar	Dressing heart		No		
	Douglas fir	Dressing heart		No		
	Rimu	Dressing sapwood		Yes	H1	
	Rimu	Dressing heart		No		
	Erima	Dressing		Yes	H1	
	Beech- silver, red, hard.	Dressing sapwood		Yes	H1	
	Beech- silver, red, hard.	Dressing heart		No		
	Plywood	AS/NZS 2269		Yes	H1	
	Wood-based products <sup>(3)</sup>	Exterior		Yes	H1	
Weatherboards (horizontal, vertical and diagonal), base battens, fascia, barge and coverboards and plywood cladding with either a 1 or 2 coat paint finish, stain, clear or no finish	Pinus species	Dressing	18 % or less	Yes	H3	110.2.4 110.2.5 110.2.7
	Rimu	Dressing heart		No		
	Larch	Dressing heart		No		
	Cypress species <sup>(2)</sup>	Dressing heart		No		
	Redwood	Dressing		No		
	Western red cedar	Dressing		No		
	Douglas fir	Dressing heart		No		
	Erima	Dressing		Yes	H3	
	Beech- silver, red, hard.	Dressing sapwood		Yes	H3	
	Beech- silver, red, hard.	Dressing heart		No		
	Plywood	AS/NZS 2269		Yes	H3	
	Wood-based products <sup>(3)</sup>	Exterior		Yes	H3	
Exterior joinery which includes window frames, sills, and sashes, exterior door frames, sills and doors and external stairs, with either a paint, stain, clear or no finish	Pinus species	Select A	18 % or less	Yes	H3	105.1
	Redwood	Select A heart		No		
	Western red cedar	Select A heart		No		
	Cypress species <sup>(2)</sup>	Select A heart		No		
	Fijian kauri	Select A heart		No		
	Kauri	Premium sapwood		Yes	H3	
	Kauri	Premium heart		No		
	Matai	Premium sapwood		Yes	H3	
	Matai	Premium heart		No		
	Rimu	Premium sapwood		Yes	H3	
	Rimu	Premium heart		No		
	Backing to solid plaster using boards, battens to non-rigid backing	Radiata pine		No.1 Framing	20 % or less	
Radiata pine		No.1 Framing	Yes	H3		
Sheathing	Plywood	AS/NZS 2269	20 % or less	Yes	H3	110.7.2
Verandah floors, unroofed decking (which can be easily replaced) with either a paint, stain, clear or no finish, sarking not protected from solar driven moisture	Pinus species	Dressing	Not limited	Yes	H3	105.1 110.9
	Cypress species <sup>(2)</sup>	Dressing heart		No		
	Vitex, Kwila	Dressing heart		No		
	Rimu	Dressing heart		No		
	Eucalyptus <sup>(4)</sup>	Dressing sapwood		Yes	H3	
	Eucalyptus <sup>(4)</sup>	Dressing heart		No		
	Beech- silver, red, hard.	Dressing sapwood		Yes	H3	
	Beech- silver, red, hard.	Dressing heart		No		
	Plywood	AS/NZS 2269		Yes	H3	
	Wood-based products <sup>(3)</sup>	Exterior		Yes	H3	
NOTE –						
(1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table.						
(2) Cypress species include Cupressus macrocarpa (macrocarpa), C. lusitanica (Mexican cypress) and Chamaecyparis lawsoniana (Lawson's cypress). Refer to NZS 3621.						
(3) Wood-based products must have a proven durability performance against dampness.						
(4) Eucalyptus species include Eucalyptus botryoides, E. saligna, E. globoides, E. mulleriana, E. obliqua, E. pilularis.						

(Amendment No. 1, August 1996)



**Table 2 (continued) – Building components requiring a 15 year durability performance (page 28)**

Delete table 2B and substitute new table 2B.

**Table 2 (continued) – Building components requiring a 15 year durability performance<sup>(1)</sup>**

Building components	Species or product	Grade or Standard ref.	In-service moisture range	Requires treatment	Level of treatment to MP 3640	See clause reference
<b>B Members protected from the weather and dampness (see section 110)</b>						
Non-loadbearing studs in walls which are non-structural elements including nogs or dwangs which if removed would not affect the stability of the building	Radiata pine	No.2 Framing	20 % or less	Yes	H1	105.1 110
	Corsican pine	No.2 Framing		Yes	H1	
	Douglas fir	No.2 Framing		No		
	Larch	No.2 Framing		No		
	Cypress species <sup>(2)</sup>	No.2 Framing		No		
	Matai	Dressing sapwood		Yes	H1	
	Matai	Dressing heart		No		
	Rimu	Dressing sapwood		Yes	H1	
	Rimu	Dressing heart		No		
	Kiln dried and gauged Radiata pine or Corsican pine	F4 or No.2 Framing	18 % or less	No		105.5 C105.5
Stair treads <sup>(4)</sup> , interior doors and frames, interior window joinery (including reveals for aluminium windows) <sup>(3)</sup>	Pinus species	Select A	16 % or less	No		105.1
	Douglas fir	Select A		No		
	Cypress species <sup>(2)</sup>	Select A		No		
	Yaka	Select A		No		
	Rimu	Premium		No		
	Eucalyptus species	Premium		No		
	Beech- silver, red, hard.	Premium		No		
	Tawa	Premium		Yes	H1	
	Plywood	AS/NZS 2269		No		
Sarking (supporting flexible roof tiles or membrane roofing) protected from solar driven moisture and provided with sufficient ventilation <sup>(5)</sup>	Pinus species	Select A	16 % or less	No		105.1 110.9
	Douglas fir	Select A		No		
	Cypress species <sup>(2)</sup>	Select A		No		
	Yaka	Select A		No		
	Rimu	Premium		No		
	Eucalyptus species	Premium		No		
	Beech- silver, red, hard.	Premium		No		
	Tawa	Premium		Yes	H1	
	Plywood	AS/NZS 2269		No		
	Wood-based products <sup>(3)</sup>	AS/NZS 1859		No		
<b>NOTE –</b> (1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table. (2) Cypress species include <i>Cupressus macrocarpa</i> (macrocarpa), <i>C. lusitanica</i> (Mexican cypress) and <i>Chamaecyparis lawsoniana</i> (Lawson's cypress). Refer to NZS 3621. (3) Wood-based products must have a proven durability performance against dampness. (4) Stairs that are readily accessible. (5) Sarking under cladding may be an integral part of the exterior envelope. If there is insufficient ventilation, levels of product performance and preservative treatment must be appropriate to the exposure conditions in table 2A.						

(Amendment No. 1, August 1996)

**Table 3 – Building components protected from the weather which require a 5 year durability performance (page 29)**

Delete table 3 and substitute new table 3.

**Table 3 – Building components protected from the weather which require a 5 year durability performance<sup>(1)</sup>**

Building components	Species or product	Grade or NZS No.	In-service moisture range	Requires treatment	See clause reference
Stair components other than treads (which can be easily replaced)	Pinus species	Dressing	16 % or less	No	111
	Douglas fir	Dressing		No	
	Cypress species <sup>(2)</sup>	Dressing		No	
	Yaka	Dressing		No	
	Rimu	Dressing		No	
	Eucalyptus species	Dressing		No	
	Beech- silver, red, hard.	Dressing		No	
	Tawa	Dressing		No	
	Plywood	AS/NZS 2269		No	
Wood-based products <sup>(3)</sup>	AS/NZS 1859	No			
All interior finishing timbers, mouldings, skirtings, architraves, panelling, decorative sarking, shelves	Pinus species	Dressing	16 % or less	No	
	Douglas fir	Dressing		No	
	Cypress species <sup>(2)</sup>	Dressing		No	
	Yaka	Dressing		No	
	Rimu	Dressing		No	
	Eucalyptus species	Dressing		No	
	Beech-silver, red, hard.	Dressing		No	
	Tawa	Dressing		No	
	Wood-based products <sup>(3)</sup>	AS/NZS 1859		No	

NOTE –

(1) All species shown in column 2 can be used for any or all of the building components listed in the corresponding section in column 1 of the table.

(2) Cypress species include Cupressus macrocarpa (macrocarpa), C. lusitanica (Mexican cypress) and Chamaecyparis lawsoniana (Lawson's cypress). Refer to NZS 3621.

(3) Wood-based products must have a proven durability performance against dampness.

(Amendment No. 1, August 1996)



**Table 4 – Allowable moisture content (%) at time of installation or in the case of framing timber at time of enclosure (page 33)**

Delete table 4 and substitute new table 4.

**Table 4 - Allowable moisture content (%)<sup>(1)</sup> at time of installation or in the case of framing timber at time of enclosure**

	<b>Use category level of finish</b>	<b>Air-conditioned or centrally heated buildings</b>	<b>Intermittently heated buildings<sup>(2)</sup></b>	<b>Unheated buildings</b>
1	Timber to which linings are attached to achieve a "level of finish" 4 to 5	8 – 18	12 – 18	12 – 18
2	Enclosed framing (including roof trusses) to achieve a "level of finish" 0 to 3	12 – 18	12 – 24	12 – 24
3	Load bearing lintels and beams	8 – 18	12 – 20	12 – 20
4	Weatherboards, exterior joinery and finishing timbers	14 – 18	14 – 18	14 – 18
5	Flooring exposed to ground atmosphere	10 – 14	12 – 16	14 – 18
6	Interior joinery and finish, furniture, corestock	8 – 12	10 – 14	12 – 16
7	Flooring not exposed to ground atmosphere	8 – 12	10 – 14	12 – 16
<p><b>NOTE –</b></p> <p>(1) Allowable ranges of moisture content are specified on the basis that 90 % of pieces shall be within the specified range, the remainder shall be within a further 2 % moisture content above or below. The moisture contents of individual boards shall be normally distributed within the range allowed. In special circumstances, e.g. flooring exposed in rooms with large window area, the upper limits may need to be reduced."</p> <p>(2) Buildings periodically heated by open fires, electric heaters, etc., such as most domestic buildings.</p>				

(Amendment No. 1, August 1996)

Section 206 (page 37)

In the title, after 'WITH A 5' add the words 'OR 15'.

(Amendment No. 1, August 1996)