

# INFORMATION SHEET

## DURABILITY



### FASTENERS AND TREATED WOOD

Zone/Environment	Material/Protection
<b>Closed (dry, internal location, not subject to airborne salt or rain wetting)</b>	
A. Anywhere in New Zealand	Mild steel (uncoated, non-galvanised)
<b>Treated timber piles (sub floor)</b>	
B. Connections within 600mm of the ground	Treat as exposed, for the appropriate zone (see H-J below)
C. Connections more than 600 mm from the ground	Treat as exposed or sheltered, for the appropriate zone (see E-J below)
<b>Roof spaces (all zones, all roof claddings)</b>	
D. (a) Nail plates	Continuously coated galvanised steel nail plates <sup>2</sup>
(b) Wire dogs, bolts	Hot-dip galvanised steel <sup>2</sup>
<b>Sheltered (open to airborne salts, but not rain washed)<sup>4</sup></b>	
E. Sea spray zone	Stainless steel, type 304 <sup>3</sup>
F. Zone 1	
(a) Sub floors and other situations vented more than 7,000 mm <sup>2</sup> /m <sup>2</sup>	Treat as exposed (see H, I below)
(b) Sub floors and other situations vented 7,000 mm <sup>2</sup> /m <sup>2</sup> or less	Hot-dipped galvanised steel <sup>2</sup>
G. Zones 2,3	Hot-dipped galvanised steel <sup>2</sup>
<b>Exposed (open to airborne salts and rain wetting)<sup>4</sup></b>	
H. Sea spray zone	Type 304 stainless steel <sup>3</sup>
I. Other zones (not geothermal)	Type 304 stainless steel <sup>3</sup> or hot-dip galvanised plus additional protection
<b>Geothermal areas</b>	
J. Within 50 m of a bore, mud pool, steam vent or other fume source	Type 316 stainless steel, or hot-dip galvanised steel <sup>2</sup> & epoxy powder coating <sup>5</sup>

#### Notes

- Items described in this table are steel fasteners required to last 50 years, used for joining timber, such as nail plates, bolts, brackets, wire dogs and similar, but not including nails and screws (which are described in Table 4.3 of NZS 3604).
- All galvanising weights to steel shall be as given in Table 4.2 of NZS 3604.
- Type 304 stainless steel is sufficient to comply with NZBC requirements, but may have surface rust. Type 316 may be used where appearance is a consideration but exceeds the requirements of the NZBC.
- 'Sheltered' shall be that above 45° line drawn from the lower edge of a projecting weathertight structure such as a floor, roof or deck. 'Exposed' shall be below that 45° line. Refer Figure 4.2 of NZS 3602.
- Epoxy powder coating and other additional protection shall be as described in NZS3604.

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