

BUILDER'S MATE

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Hard as nails?



Steel and galvanised fixings and fastenings face a greater risk of premature corrosion when they are used in timber treated with higher levels of copper. That's the finding of new BRANZ research.

The photograph shows galvanised nails after a 12 month high-humidity non-accelerated test in ACQ-treated timber. The area of nail in contact with the ACQ-treated timber shows higher corrosion rates than nails in timber treated with the traditional CCA (copper chrome arsenic), which contains less copper.

What does this mean for the sites? Mainly, you install what has been specified by the designer, which is fine as the design responsibility and product suitability has been researched by that person. But what about

things below the level of the designer's detail? A lot of decisions are made by people on-site, and these need to be based on knowledge.

First, look at how we currently meet the Building Code. Mostly we build to NZS 3604. Within this standard, Section 4 Durability Table 4.1 gives the protection required for steel fixings and fastenings (excluding nails and screws). For the 50 year durability requirement other than for 'closed' and 'roof spaces' there are few options: Type 304 stainless steel or hot-dipped galvanised

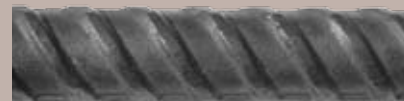
INDUSTRY NEWS

New markings on steel

Markings on all seismic 500E[®] reinforcing bars will make identification easier.

Pacific Steel has introduced new markings on its quench and tempered (QT) reinforcing steel to let users tell the difference between it and their micro-alloy (MA) bar. "The new markings are designed to make it easier for those individuals working on-site to ensure they are using the correct steel as specified by engineers," said Chairman Alan Pearson. "It is critical that the two types of steel are not used interchangeably."

For more information visit the Pacific Steel website at www.pacificsteel.co.nz.



The micro-alloy (MA) reinforcing bar marking.



The quench and tempered (QT) reinforcing bar marking.

HAMMER 'N' NAILS

NO, YOU CAN'T COME AS MY PARTNER.



Win!

A Galaxy Leveller extension ladder worth over \$500





Nails taken from a non-sea spray zone deck in service for 7 years compared against a new one. The timber treatment here was also ACQ, but there was less moisture present in the treated timber.

Continued from previous page

plus 100 microns thick epoxy powder coating for 'exposed' areas and Type 316 stainless steel or hot-dipped galvanised plus epoxy powder coating for 'geothermal' areas. These requirements apply to any copper-based preservative including CuAz and ACQ as well as the older CCA.

The major effect of the greater risk of corrosion with the higher copper levels will be

on those fixings such as nails and screws not normally detailed by the project's designer. It is BRANZ's opinion that nails and screws used for framing in 'sheltered' and 'exposed' areas as defined by NZS 3604 should now be stainless steel. Non-structural cladding (15 year durability) which isn't protected by a paint system should also be fixed using more durable nails and screws – either stainless steel or silicon bronze.

PRODUCT INFORMATION



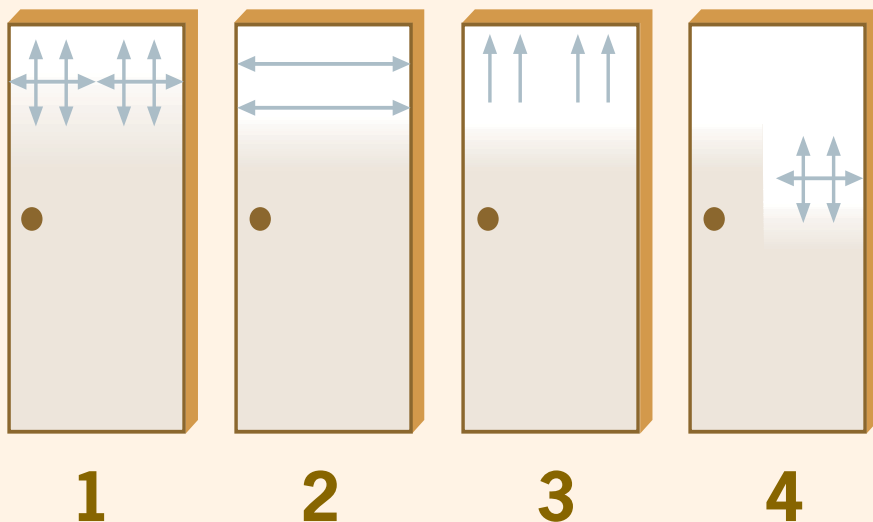
Supertubs laundry tubs come with one or two drawers, a powder-coated galvanised steel cabinet and supporting levelling feet. There is a separate waste connection for a washing machine which allows machine use even if the tub is full. Side apertures for hoses and hidden washing machine taps give a cleaner look. The single lever tap copes with all water pressures.

www.robinhood.co.nz

At a glance

Painting flush doors

Speed is important when painting flush doors. Good quality brushes and the right technique will give better results than a roller. Without recharging the brush, carry out steps 1 and 2, then lay off with light vertical upward strokes (step 3). Continue in the same way painting down the door (step 4).



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Bull-nose verandahs



Bull-nose verandahs were popular on early New Zealand homes, but as the Californian bungalow took over from the villa, the bull-nose lost its place. Many builders today have never built one...but hey...how hard can it be?

Well, not very hard, but there is a trap in the corner for the unwary. The hip rafter is at a 45° angle to the others and will be longer, but the bull-nose is also a different shape, as those who remember their tech drawing days will know. If you make the end curve the same as the other rafters, you will find that the iron doesn't fit. You don't have to be a genius to work out how I know this. So let's do it right.

A bit of maths first. If we have a verandah 2 m wide and the bull-nose rafters curve over the last 0.5 m, this is 25% of the plan length. We calculate the length of the hip rafter using Pythagoras's formula.

In our example it is the square root of $2 \text{ m}^2 + 2 \text{ m}^2$ which equals 2.829 m. 25% of that length is 0.707 m. So the hip rafter curves over 0.707 m and not 0.5 m. This makes a flatter curve.

You can draw the rafters full-size on a 3.6 x 1.2 sheet of ply or in chalk on your garage floor. Referring to Fig 1, the heights at positions a, b, c, d, e and f must be the same for both rafters. Even when you get the maths right and make the flatter curve, remember that curve is only correct on the centre-line of the top of the hip rafter. You will still need to finally hand shape it to get the roofing to sit perfectly flat.

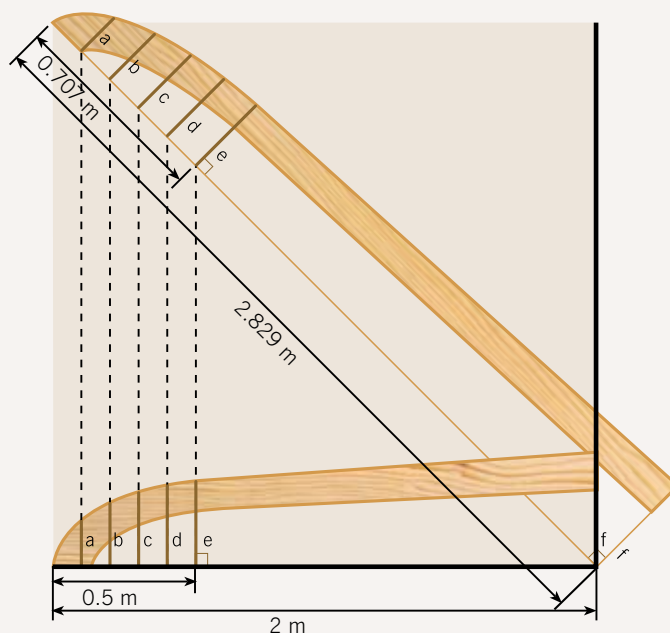


Fig 1: Dimensions a, b, c, d, e and f must be the same for both profile rafters.

Dribblings from the Old Geezer



"Will you respect me in the morning?" A trite but evocative phrase, as usually someone is being shafted when the question is uttered.

Respect is something that is not always shared around on the building site as much as it should be. Often the gnarled old builder is slightly daunted by the dapper little designer who is controlling things. Sometimes it is tiny little things that set off the antipathy. It may be embarrassing for the experienced builder to have to ask "what is a 4.5 mm RAB?" But it is the same for the designer when they are asked if yellow charges should be used in the Ramset gun. It is like an older person going to a trendy cafe and being faced with a spotty youth asking if they want a cappuccino, mochaccino, latte etc.

Don't diss someone just because they don't know the latest fad word. Why not look at what they do know and how you can learn from them. Nobody should be ashamed to ask a question.

Remember, it is always nice to go home knowing more than when you went out the door in the morning.

Des Molloy, BRANZ Ltd presenter

COMPETITION



What is the name of this pictured tool and what is it used for?



Win!

A Galaxy Leveller extension ladder worth over \$500

The Galaxy Leveller 12 has a levelling device which allows safe access to heights from uneven terrain. Extensively field trialled, this aluminium ladder extends 3.8 m to 6.3 m, has flat tread 'D' shaped rungs and a 120 kg load rating. With an industrial duty rating, it is ideal for builders, plumbers and carpenters.

The prize is provided courtesy of The Tool Shed.

1. All you need to win is tell us the name of the mystery tool above and what it's used for.
2. Send us your answer plus your name, address and telephone number on the back of an envelope. Post it (you don't need a stamp) to: Builder's Mate 22, Mystery Tool Competition, FREEPOST BRANZ, Private Bag 50908, Porirua City 5240. One entry per entrant please.
3. Don't forget to tell us where you picked up your copy of *Builder's Mate*! The winner will be the first correct entry drawn at 9 am on Friday 30 March 2007. Details will be posted on the BRANZ Ltd website (www.branz.co.nz) and in the next edition of *Builder's Mate*, due out on 1 May 2007.

Terms and conditions:

Entry is open to all New Zealand residents except employees and immediate families of BRANZ Ltd, BRANZ Inc, BRANZ Pty and The Tool Shed shops. The competition will close on Friday 30 March 2007. The prize is not transferable for cash. The judge's decision is final. No correspondence will be entered into. BRANZ Ltd may, from time to time, send you information about our products. You can contact us at any time if you do not wish to receive this information.



BUILDER'S MATE WINNERS

The winner of the BM 20 competition was WM Sedcole of Wanganui. The mystery tool was a 'holdfast.'

The winner of the BM 21 competition is Max Muldrew of Timaru. The mystery tool was a 'shooting board' used as a jig to guide your plane, especially when the end grain of a board is to be planed.

BLOKES on the job

GLEN WORKMAN

building in Pauatahanui on the Kapiti Coast.



Favourite tool

Makita Mitre Saw.

Favourite tip

Check once, check twice and check a third time just for fun.

ANDY BURRIDGE

of Nelson.



Favourite tool

Nail gun.

Favourite tip

Safety is essential, protect yourself at all times.

CHRIS ROBISON

of Lyall Bay, Wellington.



Favourite tool

Paslode nail gun.

Favourite tip

Remember to do all your fixing before you start the plasterboard lining.

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Standards referred to can be purchased from Standards New Zealand.
Tel: 04 498 5991 or www.standards.co.nz.

Know someone on the job? Send us details of his or her favourite tip and tool and you could win \$50-worth of BRANZ books.