

Timber Talk

Tunnickliffe's

December 2008

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Another Year Flies By

And yet another year has gone by, time for a decent break. It has been an interesting twelve months with the economy slowing down, watching overseas financial markets falling apart. There will be some uncertainty as to what 2009 will bring us all in New Zealand, but we believe that we should not 'timber talk' one another down. It seems that most of our customers are having less but still reasonable work loads ahead of them, enough reason to stay optimistic and treat some of the media reports with caution. We have seen a pattern of holding back a little on ordering with respect to timing, it seems that nobody wishes to hold too much stock. This results in more smaller orders needed more urgently...

Progress within CTS Ltd on designing and testing exterior timber joinery to include

double glazing and meeting performance standard NZS 4211 is steady. We are receiving mainly positive feedback with regard to our initiative and notice that there is now a wider dialog going on in the industry signaling change. We are very pleased with that and encourage any other party to get stuck in and help our industry taking the opportunities that are currently there. In this newsletter you will find an update on CTS Ltd.

If you have missed our October 2008 Timbertalk, check out our website: www.tunnickliffes.co.nz on our new, exiting product ThermoWood.

We like to thank all our customers for their business during 2008 and wish you all a safe and happy Christmas break with a good start to the New Year.

Christmas Hours

At Tunnickliffe's we finish the year on Tuesday 23 December 08, back in full swing on Monday 19 January 09.

We will have our office manned from Monday 12 January 2009 to take any orders and dispatching stock items.



Double Glazing Update

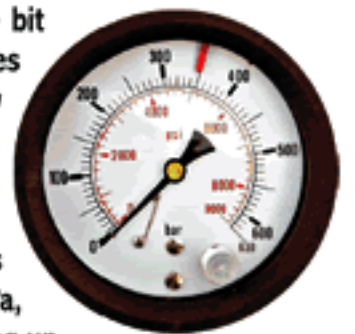


CTS Ltd. are making steady progress with the development and testing of the double glazed exterior timber joinery and to comply with performance standard NZS 4211.

The tests consists of positive and negative wind pressures for a range of wind zones. Under these pressures the joinery needs to meet certain levels of overall strength and deflection, air-leakage and water-tightness.

As with all legislation, changes are made over time and the bar is

always going to be raised that little bit higher. In anticipation of these changes we have been testing to the new standard coming up. For example, wind-loadings for all wind-zones is going up by 15%. The ultimate wind-loading for the 'very high wind zone' is going up from 1550 Pa to 1760 Pa, which equates to the wind speed going up from approximately 180 km/h to 195km/h.



Just recently the 4 panel bi-fold configuration came out of the test booth rather successfully meeting air-leakage and water-tightness for the very high wind zone, except for the deflection target where the 2.4m high joinery fell short by just 0.1 mm. This is a remarkable result and in following tests we will be able to rectify and meet this high standard.

The double hung window is next and also the open-in door will be re-tested before the end of the year. After the Xmas break the sliding doors are going to be the target and is CTS getting close to entering the market with certified product.

The Myth About Primer



We have seen an extremely wet winter this year which has caused a few problems for some of our timber joinery customers. The problem being exterior windows and doors getting wet during the building process, resulting in bowing and twisting and in some cases cracking. The most vulnerable part of the joinery are the window, and door-sills.

The problem occurs with the majority of timber species, yet is a common problem with Radiata pine which is mainly used for the frames; jambs, sills and mullions.

Once the manufactured joinery leaves the joinery shop, it is up to the builder to ensure that it is prepared and installed properly during the building process. It is common industry practice to prime the joinery on all surfaces as soon as possible, under dry conditions, before installation.

There is a perception that once this has been undertaken, nothing can go wrong. But this is a myth, primer helps protecting the timber from absorbing moisture in high humidity conditions. It does not prevent liquid on the surface being absorbed. Under prolonged extreme wet conditions, as we have been experiencing in recent winter-months, once the joinery is installed, the primer is unable to sufficiently protect the timber from penetrating water, causing it to swell. The expanding timber then causes stress on finger-joints and lamination glue lines and can result in bow and delamination. If there is rapid change in moisture content cracking can also occur.

There is arguably no primer on the New

Zealand market today which is able to seal the timber adequately and make it "water-proof".

What in fact needs to be sealed off are very small openings on the surface of the Radiata pine timber components which cannot be seen with the naked eye, you don't need a microscope but with a reasonable magnification glass you can see "resin canals", which are designed to transport water and nutrients between the wood cells, in horizontal direction, at the time the timber was part of a living tree. If you have a close look, you can see thousands of needle-pin-holes.

Water is easily absorbed through these pin holes in liquid form. A minimum of two quality coatings of finishing paint prevents this from happening. It should be noted that the best way of applying the coatings of paint is with a brush because the forces at the tips of bristles are working the coating into these pin holes which are hard to fill up. Spray coats in situations where there are many resin canals won't necessarily fill these up.



The only way for the water to get out of the timber is in gas form (vapour). The principle ingredients of drying timber are temperature and airflow. The process of moisture getting out takes much longer than the water penetrating (flowing into) the timber.

The combination of water, primer and timber is close to 'one way traffic'.

Putting primed joinery out in the weather is like setting up a 'non-return valve'. It is easy for water to get past the primer into the timber yet the primer makes it hard for water vapour to get out again.

If water got into the timber and the finishing coatings of paint are going on the water is trapped and further problems may occur such as rot, only to become apparent six months, one, sometimes two years later, even if the timber was treated.



However, unfortunately, it is realistically not always achievable to finish timber joinery with the required two coatings of paint during the building process in weather conditions described above.

Under these circumstances it is too easy to blame the timber. With this article we hope to raise the awareness of the problem in the wider industry to help prevent it. Things go wrong in business, problems come up from time to time, what matters is how they are dealt with and we believe that understanding the problem is half the fixing of it.

One thing is for sure, a quality paint job is an essential part of the final product which is often underestimated. We plan to touch on that subject in our next TimberTalk.

Research on the matter was undertaken in association with Barry Whalley, retired (very recently) Managing Director and Technical Director of BM Pacific Ltd.