

Timber Talk

Tunnickliffe's

October 2007

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Double Glazing Special Edition

New Building Code

The current hot topic amongst manufacturers of exterior windows and doors is double glazing. We receive many questions lately, especially from joinery-customers, making timber windows and doors, as to what is happening about the new legislation coming in soon that could effect their business in a very significant manner.

every component of the building envelope, floors, walls, roof etc., has its own specific calculated R-value. All components together will then make up an overall R-value for the building.

The Energy Efficiency requirements vary depending on where you are in New Zealand. There are three different Climate Zones, each climate zone has specific R-values to comply with.

The new regulations are introduced in stages and apply to each Climate Zone as follows:

31 October 2007 Climate Zone 3

The South Island, Chatham Islands, Stewart Island, the Taupo and Ruapehu district and the northern part of the Rangitikei District.

30 June 2008 Climate Zone 2

Any Areas not in Climate Zone 1 or 3.

30 September 2008 Climate Zone 1

Northland, Auckland and the Thames-Coromandel districts.

Anyone having tried looking for some information on the topic will have been frustrated at not being able to find much. However through the website of the Department of Building and Housing (<http://www.dbh.govt.nz/>) you can get a free download of Clause

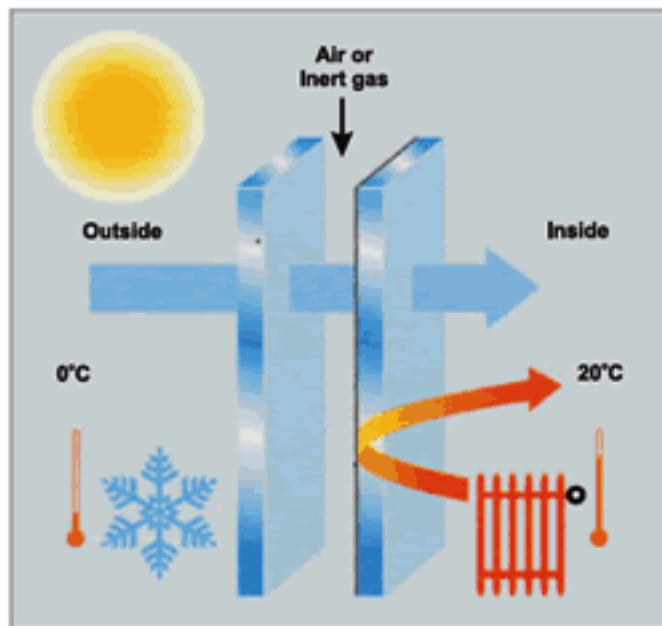


H1 which will put you on the right track. You need to carefully click your way through the following path:

"Building">under "Building Law and Compliance" click on "Compliance Documents">"get copies">Scroll down to "H1 Energy Efficiency" choose the second option (Effective date 31 October 2007 205KB 32 pages).

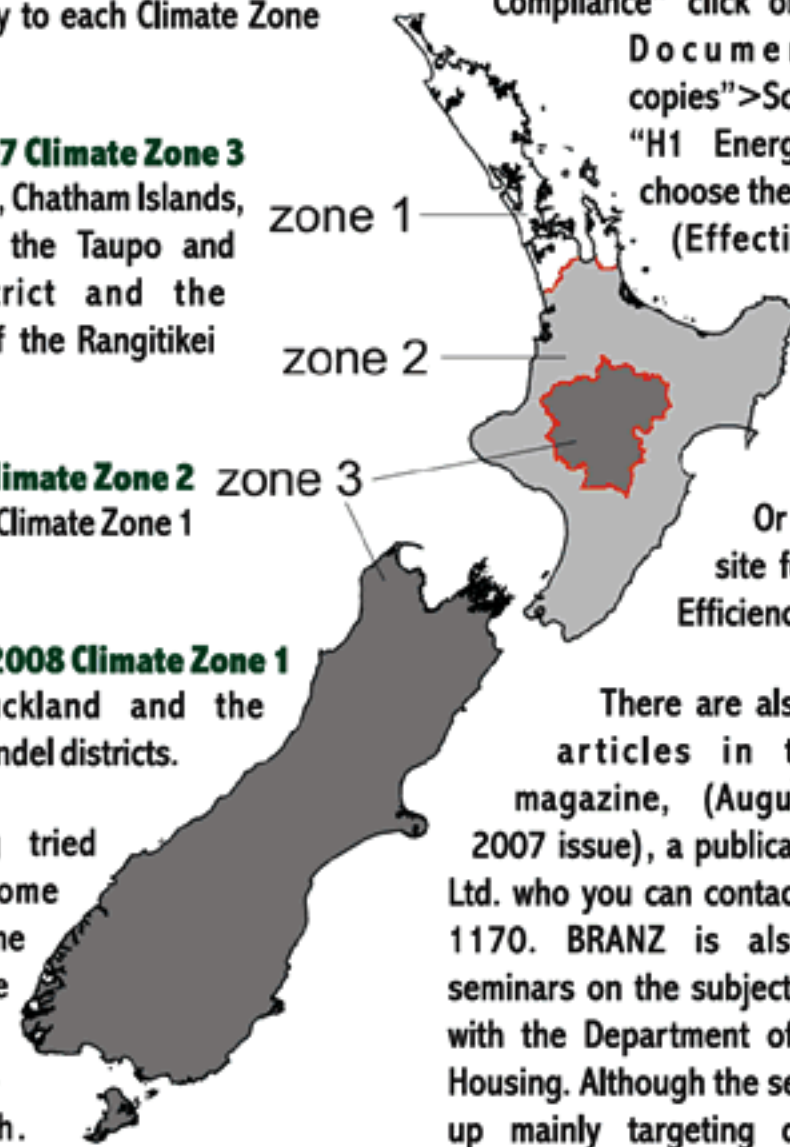
Or search on their site for "H1 Energy Efficiency".

There are also a couple of articles in the "Build" magazine, (August/September 2007 issue), a publication by BRANZ Ltd. who you can contact on (04) 237 1170. BRANZ is also organizing seminars on the subject in association with the Department of Building and Housing. Although the seminars are set up mainly targeting designers and architects it should give the joiner a good idea as to what the requirements are.



The legislation comes from the Department of Building and Housing and is an amendment to Clause H1 of the New Zealand Building Code, which covers the Energy Efficiency. The H1 Compliance Document, including the Acceptable Solution, has also been amended. In summary, new buildings and extensions to existing buildings in New Zealand will have to achieve higher levels of insulation, retaining heat within the building saving energy and providing for a healthy living environment.

The insulation value is expressed in an R-value. Depending on the design,



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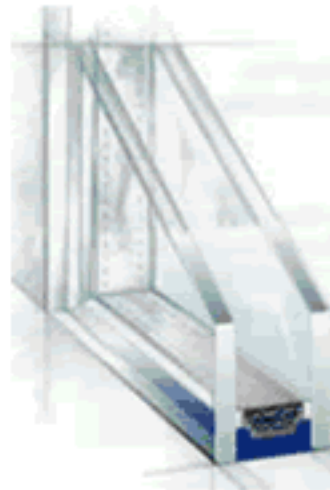
See the BRANZ website (www.branz.co.nz, click on "Seminars") for further details and to register on-line for one of the following dates:

Date	Area
Monday 26 November	- Hamilton
Tuesday 27 November	- Auckland
Wednesday 28 November	- Queenstown
Thursday 29 November	- Dunedin
Monday 3 December	- Christchurch
Tuesday 4 December	- Nelson
Wednesday 5 December	- Wellington
Monday 10 December	- Taupo

It is not correct to assume that double glazing has been made mandatory. In theory, it will still be possible to design a house with single glazing, in any of the Climate Zones, complying with the new

building code. This depends on the materials and systems used for walls, flooring and roofing and as to the amount of glass area allowed for. However, it is probably fair to say that double glazing will become a common occurrence in the future homes of New Zealand.

This development will have a significant affect on any business making windows and doors. Applying double glazing will not only change the products and the way we manufacture them, it makes them more expensive too. The double glass or IGU (Insulated Glass Unit) is thicker and



inevitably changes the sizing of window sashes and doors. As a result, frame sizes, jambs, mullions, sills are all bound to change.

It is a mistake to think that you can treat an IGU as if it was a single pane of glass, to just change the size of the sashes and beads and assume business as usual. IGU units require a system of ventilation and drainage. Glaziers will also have to adjust to all the changes.

The local authorities, should assess building consent applications according to the new regulations. It will be up to the architects and designers of houses to prescribe the right products for building projects on which the joiner will be making quotations to manufacture.

New Initiative

From the picture painted above it can be reasonably concluded that the new Clause H1 Energy Efficiency requirement in the New Zealand building code will change the landscape for every joinery business manufacturing exterior windows and doors. With the new legislation there will be challenges and opportunities at the same time.

Timber joinery can be regarded as a niche market in the current New Zealand building industry. If the timber joiners were to be able to offer a compliant and cost effective option there is a potential to grow market share, as timber has a significant advantage over aluminium with regard to insulation value (the R-value for wood-framed double glazed windows is 0.36, as compared to an R-value of 0.26 for aluminium-framed double glazed windows).

Up until now there is no specific standard or system as to how to incorporate IGU units in timber joinery. The larger aluminium industry is well on

the way to offer complying packages.

As a supplier of timber components to joiners, Tunncliffe's has joined forces with 4 of its Auckland based customers by forming a group to design a new system to accommodate double glazing in exterior timber windows and doors. Members of the group are:

Bowden and Wakefield -
Seaboard Joinery - Total
Timba Joinery - Westpine
Joinery - Tunncliffe's

The aim is to establish a product range that will comply with the building code in general and, more specifically, with regard to the new energy efficiency requirements.

The group is focused on keeping their business up to date and sustainable for the future believing that it is in the interest of the timber joinery industry as a whole to get organized. The plan is,

therefore to make the development available to other businesses.

The group is currently in the design and planning stage incorporating what has been learned in overseas markets over the past 20 years. The new system will need to meet all structural, weather-tightness and aesthetic criteria for the

New Zealand market. The aim is to have a reasonable amount of products tested and certified before 30 September 2008. We will keep you posted as to our progress and if you have any questions or suggestions please feel free to give Daan a call on 0800 657 934.

