

the right combination

The treatment of windows and doors in Australia has come a long way. Michelle Dunner looks at some options.



With consumers becoming increasingly environmentally conscious, and with increased government regulation across Australia to promote more energy-efficient homes, there have been significant challenges lately for designers in the use of windows and doors. It has also meant a huge variety of new door and window options developed by manufacturers. But it is important to choose the right ones.

‘Whether you are building a new home, renovating, or adding an extension, your choice of windows and doors will have a significant impact on the look of a home, the amount of light and ventilation that comes in and goes out, and your client’s overall enjoyment of the spaces,’ says Stegbar national marketing manager, Bruce Tosello.

‘Choosing the right windows and doors for a home is as important as choosing the architectural style itself.’

These days, windows and doors often cover more than half the surface area of the average house. ‘The right choices

can make a home inviting from the outside, appear more spacious from the inside, enhance the architectural style, and increase the value of the house,’ Bruce says.

Given the importance of the window and door selection, Stegbar’s mantra is to get people to look at the windows rather than through them. Bruce says it’s crucial to choose the right combination of frame – whether timber or aluminium – fenestration, i.e., the way the window operates (sliding, double hung, awning or casement) and the glazing.

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‘Many homeowners and renovators choose aluminium windows or doors in a colour that matches the exterior finish of the house, only to discover the gun metal blue aluminium finish that looks great from the outside is actually awful in their living room.

‘However, timber windows and doors, correctly installed and maintained, makes timber a very attractive option.

‘As well as our individual Western Red Cedar and aluminium ranges, we have developed the AT2000 Series

Performance figures

Performance ratings for a wide range of windows are available on the WERS website, www.wers.net. Following is a selection of Stegbar window combinations as an indication.

Window style	Glass type	U-Value	SHGC
Aluminium awning	3mm clear	6.570	0.649
Aluminium awning	4mm tone – high performance	6.530	0.441
Aluminium awning	6.38mm Low-E	4.970	0.400
Aluminium awning	3mm clear/8mm air/3mm clear	3.793	0.540
Cedar awning	3mm clear	4.903	0.603
Cedar awning	4mm tone – high performance	4.877	0.405
Cedar awning	6.38mm Low-E	3.411	0.366
Cedar awning	3mm clear/8mm air/3mm clear	2.264	0.495
AT2000 Series	3mm clear	5.393	0.566
AT2000 Series	4mm tone – high performance	5.356	0.383
AT2000 Series	6.38mm Low-E	4.006	0.347
AT2000 Series	3mm clear/8mm air/3mm clear	3.557	0.512

For more information visit www.stegbar.com.au or call 1800 681 168.





ComfortGuard Thermal

Windows can be one of the major sources of heat transfer, letting unwanted heat in during summer and warmth out during winter. Stegbar research indicates that an average home could lose up to 40 per cent of its heat or air conditioning energy through its windows.

To help homeowners combat this problem, Stegbar developed the ComfortGuard™ Thermal range of timber windows that claims to exceed all Australian energy code requirements.

The windows are made from Western Red Cedar, harvested from sustainably managed forests and treated for the harsh range of Australian conditions. According to Stegbar, they are better than aluminium at preventing heat flow while also offering more design flexibility.

However, the choice of frame is only part of the equation; the type of glass used is crucial to achieve the right degree of comfort, performance and lifestyle.

Stegbar combines its cedar window range with glass options marketed under the name ComfortPac. These come in a wide variety of properties and thicknesses to enhance thermal performance, safety, security and sound reduction. These glass options are also available with Stegbar's range of aluminium windows and doors.

The key measures of performance for glazing are the U-value for insulation and the solar heat gain co-efficient or SHGC – in both cases, the lower the figure the better. (See box p88.)

Given that regulations for energy efficiency can vary from state to state, the national standard is the Australian Window Association's Window Energy Rating Scheme (WERS). This system takes both frame and glass into consideration and rates their energy performance against a 'base window' – defined as an aluminium sliding window frame with 4mm clear glass – giving both the U-value and SGHC.

These can then be entered into energy rating software to determine the rating for the entire house – and can be measured against a state's particular requirements as well as the BCA.

which give you the best of both worlds – these feature aluminium on the exterior and timber for the interior.'

To many homeowners glass is simply glass, Bruce adds, so it is easy to overlook the importance of selecting the right type for a new home or renovation. However, the reality, he says, is that few building decisions are more important than 'Which glass?'

'Performance results between the substrates are very similar. When it comes to choosing glass, the clear differences come after the substrate is chosen.'

There is now an enormous variety of glass available that gives incredible performance, particularly in security and sound benefits. And according to Bruce, there are nine different glass applications in Stegbar's ComfortPac range alone.

It's a very important consideration, he says. 'We have generally smaller block sizes, houses are closer together, and we need to be aware of how we are going to get light and ventilation into our houses with cleverly placed windows and doors that perform to the level we need.' **H**

