

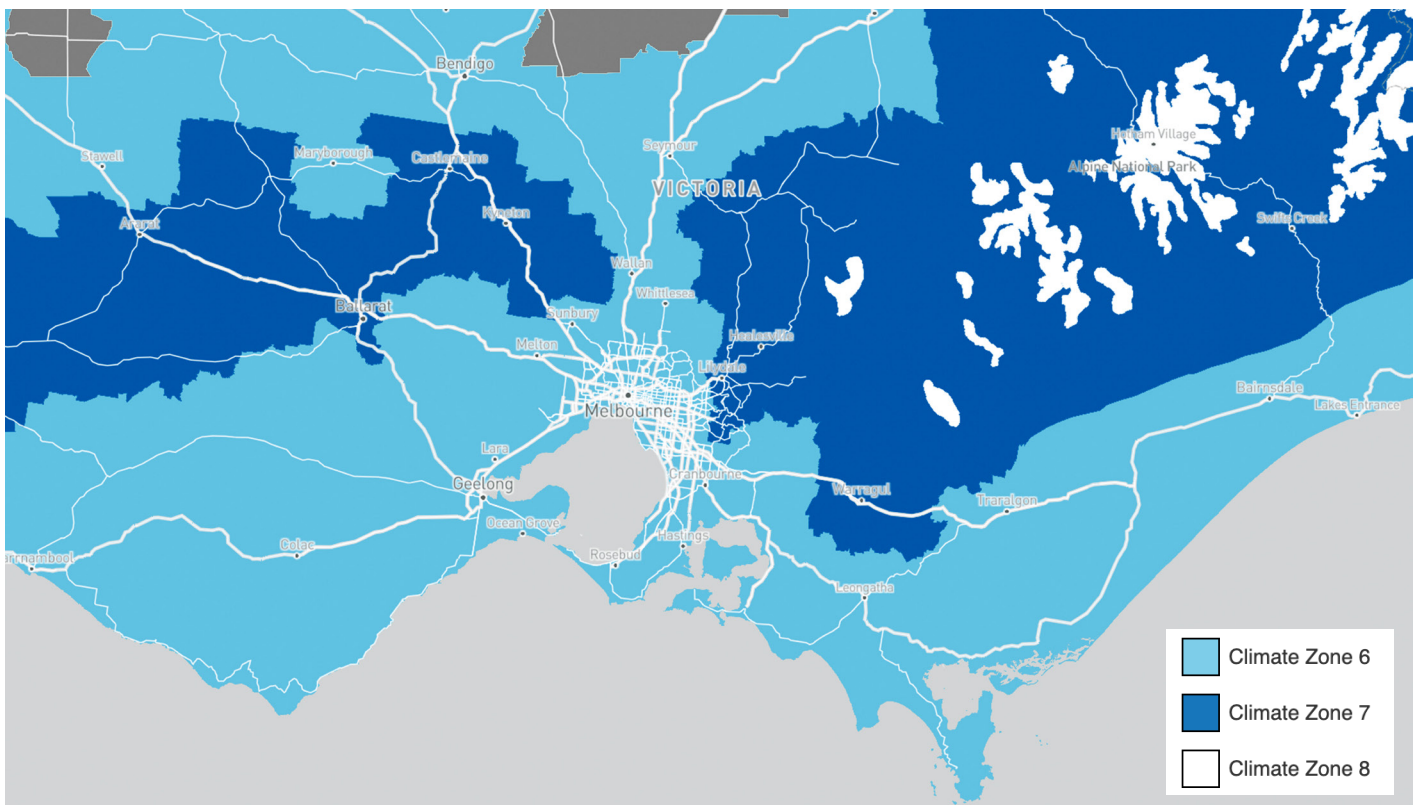
# Guide to achieving 7 stars in VIC.



# Achieving energy efficiency

## What are the steps you can take to improve your Window and Door performance from an Energy Efficiency standpoint?

When it comes to evaluating the performance of your Windows and Doors, there are several factors to be considered when deciding the best options for keeping your home thermally comfortable. Glazing has the greatest impact and which glass is best depends on your climate and whether more energy is used heating or cooling your house: 'Climate zones' are defined by the Australian Building Codes Board, referenced in the National Construction Code and they are used in energy rating a home.



The above map highlights the different climate zones you'll find throughout Victoria. Victoria has multiple climate zones.

Source: [abcb.gov.au](http://abcb.gov.au)

**Victoria has multiple climate zones:** This document deals with the main 3 climate zones 6, 7 and 8 which are considered heating climate zones, so it is important that your Windows and Doors have a low U Value (which denotes better insulation) and high Solar Heat Gain Co-efficient (SHGC); In a heating climate like most of Victoria you want to capture free heat from the sun so need a high SHGC.

For the Central Victorian region from Shepparton to the NSW border and out to Echuca (Climate zone 4), please refer to the NSW document as the same guidelines apply.

**When you are looking at upgrading for better performance or 7 Star compliance some basic rules are as follows:**

## Good

### **ComfortSmart Hybrid - Clear Double Glazed**

A good upgrade from A&L's Standard Clear Double-Glazing is our 'ComfortSmart Hybrid' with Clear Double Glazed as standard. This is a newly developed Hybrid Series that uses A&L's Standard Frames with an enhanced Thermally Broken Sash or Panel, while maintaining high energy rating requirements without a significant change to build cost.



'ComfortSmart Hybrid' allows you to achieve energy rating requirements without significant change to build cost.

## Better

### **ComfortSmart Hybrid - Double Glazed Soft Coat Low-E**

For even better performance for more demanding climate zones, orientations or house designs, you can upgrade the glass to a Double-Glazed Soft Coat Low-E unit. This Double-Glazing unit applies a high-performance Soft Coat Low-E coating to surface 2, to minimise heat loss to the external environment and will significantly reduce the windows U Value in order to meet 7 Star compliance requirements.

## Best

### **ComfortSmart Hybrid - Double Glazed Double Coat Low-E**

Our best performing glass to achieve superior energy efficiency in Victoria is a Double-Glazed Double Coat Low-E unit, using a soft and hard Low-E coating on both panes. The 2 coatings lower the U Value even more, for exceptional comfort inside your home. The combination is our best performance glass, and the enhanced ComfortSmart Hybrid Sash and Panel will help with compliance, for even the more complex projects.

While performance will be a very important factor in determining what glass you ultimately choose, other factors such as cost, window colours, availability and lead times are also critical. For those reasons A&L will have a recommended glass type that will assist greatly in achieving 7 Star compliance at a competitive cost point on a short lead time to site. Other options will be available if required.

To reiterate, Victoria has predominately heating climate zones and therefore most energy is used to heat the home, to keep occupants thermally comfortable. In addition to U Value and SHGC, colour choice can also play a part in achieving Energy Efficiency; Darker colours are preferable to capture and transfer radiant heat into the interior of the dwelling.

Under the NCC 2022 Energy Efficiency Provisions, All new homes and building permits issued in Victoria from May 1st 2024 will need to meet a minimum energy efficiency rating of 7 stars.

In conjunction with good design and orientation, the products and glazing we recommend below will assist in achieving 7 stars for your building. All products upgraded from standard have soft coat Low-E double glazing at a minimum and include a good, better, best scenario for each range.

All products include standard A&L inline reveal, aluminium frame.

Product Type	WERS Code	Option	Glass Type	U Value	SHGC	Reduction of U Value
<b>Standard Awning Window</b>	A&L-004-012	Standard	Clear DG	3.5	0.54	-
	A&L-120-001	Good	Hybrid Sash Clear DG	3.2	0.56	9%
	A&L-120-002	Better	Hybrid Sash Soft Coat Low-E DG	2.5	0.44	29%
	A&L-120-003	Best	Hybrid Sash Double Coat Low-E DG	2.2	0.39	37%
<b>Boutique Awning Window</b>	A&L-024-012	Standard	Clear DG	3.8	0.49	-
	A&L-024-049	Good	Soft Coat Low-E DG	3.2	0.39	16%
	A&L-024-300	Better	Double Coat Low-E DG	3.0	0.36	21%
	A&L-115-011	Best	Thermally Broken Low-E DG	2.0	0.35	47%
<b>Standard Sliding Door</b>	A&L-013-004	Standard	Clear DG	3.5	0.63	-
	TBA	Good	Hybrid Panel Clear DG	3.3	0.66	6%
	TBA	Better	Hybrid Panel Soft Coat Low-E DG	2.3	0.50	34%
	TBA	Best	Hybrid Panel Double Coat Low-E DG	2.1	0.45	40%
<b>Boutique Sliding Door</b>	A&L-032-001	Standard	Clear DG	4.0	0.54	-
	A&L-032-042	Good	Soft Coat Low-E DG	3.4	0.44	15%
	A&L-043-304	Better	Double Coat Low-E DG	3.3	0.42	18%
	A&L-109-034	Best	Thermally Broken Low-E DG	2.1	0.47	48%