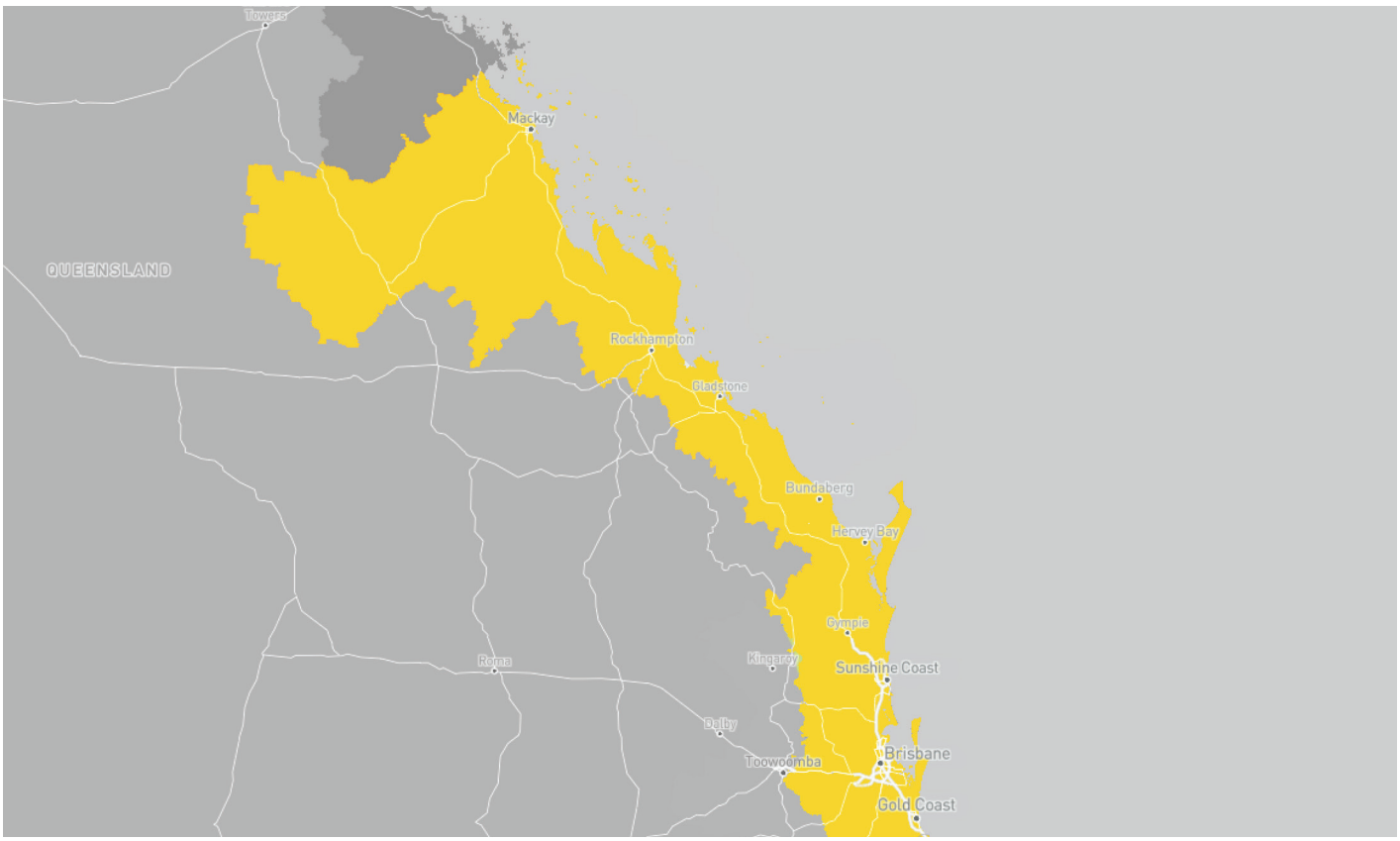
Guide to achieving 7 stars in QLD.

A&L
WINDOWS | DOORS

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 Queensland. Queensland has multiple climate zones.
Source: abcb.gov.au

Queensland has multiple climate zones: This document deals with the Queensland coastal region (Climate zone 2) which is primarily a cooling climate, so it is most important that your Windows and Doors have a low Solar Heat Gain Co-efficient (SHGC), as you want to prevent the heat from the sun entering your house. At the same time, climate zone 2 experiences mild winters, so having windows with a lower U Value is equally important. A lower U Value contributes to energy efficiency by minimising heat loss and reducing the need for heating in cooler seasons. In turn, this lowers energy consumption and associated heating costs.

For the Western region, including Toowoomba and Dalby (climate zone 5), please refer to the NSW document as the same guidelines apply.

Some options for improving your Energy Efficiency through glass are as follows:

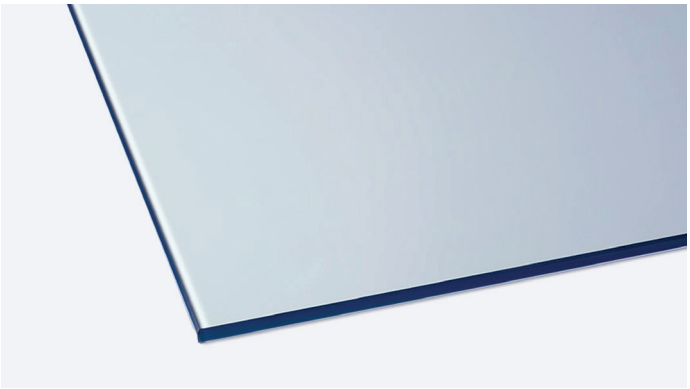
Good ✓

A good upgrade from A&L's Standard Clear Single Glazing is Clear Hard Coat Low-E. The glass is coated in thin layers of metallic oxide when manufactured, which reflects radiant heat helping to maintain a cooler interior.

Single Glazed Clear Hard Coat Low-E

Better ✓✓

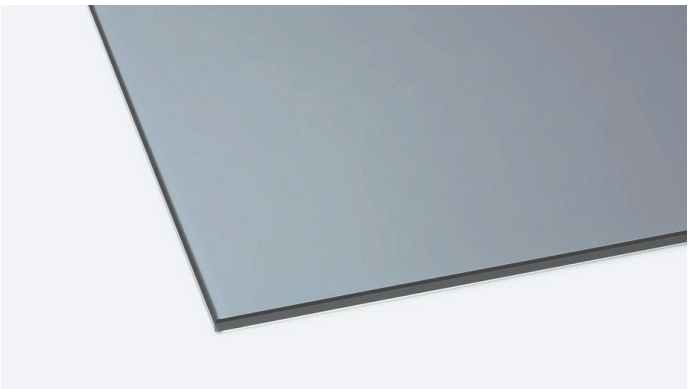
For an even better performance for difficult climate zones, orientations or house designs, you can choose Neutral Hard Coat Low-E which provides a significant improvement in reducing your SHGC.



Single Glazed Neutral Hard Coat Low-E Glass

Best ✓✓✓

The best performing glass to achieve improved energy efficiency in Queensland is a Single Glazed Grey Hard Coat Low-E. This combination will provide superior energy efficiency and will help with compliance for even the most demanding designs or sites.



Single Glazed Grey Hard Coat Low-E Glass

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, Queensland has predominantly cooling climate zones which means that most energy used is to cool the home to keep occupants thermally comfortable.

Colour choice can also play a part in achieving Energy Efficiency in conjunction with U Value and SHGC; Lighter colours are preferable to reflect the radiant heat away from the inside the home.

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

In addition to good design and orientation, the products and glazing we recommend below will assist in achieving 7 stars for your building. All upgraded products 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 SHGC
Standard Sliding Window	A&L-003-004	Standard	4mm Clear SG	6.1	0.76	-
	A&L-003-300	Good	Clear Hard Coat Low-E SG	4.4	0.64	16%
	A&L-003-032	Better	Neutral Hard Coat Low-E SG	4.3	0.49	36%
	A&L-003-030	Best	Grey Hard Coat Low-E SG	4.4	0.34	55%
Standard Awning Window	A&L-001-004	Standard	4mm Clear SG	5.8	0.65	-
	A&L-001-300	Good	Clear Hard Coat Low-E SG	4.3	0.55	15%
	A&L-001-032	Better	Neutral Hard Coat Low-E SG	4.3	0.42	35%
	A&L-001-030	Best	Grey Hard Coat Low-E SG	4.3	0.30	54%
Boutique Awning Window	A&L-023-004	Standard	4mm Clear SG	5.8	0.55	-
	A&L-023-305	Good	Clear Hard Coat Low-E SG	4.7	0.47	15%
	A&L-023-034	Better	Neutral Hard Coat Low-E SG	4.6	0.37	33%
	A&L-023-032	Best	Grey Hard Coat Low-E SG	4.5	0.26	53%
Standard Sliding Door	A&L-012-004	Standard	4mm Clear SG	6.1	0.72	-
	A&L-012-301	Good	Clear Hard Coat Low-E SG	4.3	0.61	15%
	A&L-012-032	Better	Neutral Hard Coat Low-E SG	4.2	0.46	36%
	A&L-012-031	Best	Grey Hard Coat Low-E SG	4.5	0.33	54%
Boutique Sliding Door	A&L-042-022	Standard	4mm Clear SG	6.1	0.60	-
	TBA	Good	Clear Hard Coat Low-E SG	4.7	0.51	15%
	A&L-042-024	Better	Neutral Hard Coat Low-E SG	4.6	0.38	37%
	A&L-042-026	Best	Grey Hard Coat Low-E SG	4.8	0.28	53%