




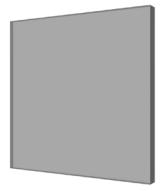
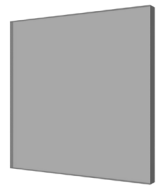








NCC 2022: 7 Star Double Glazing Solutions

Australian Glass Group have you covered for the inevitable NCC 2022 improvements in Energy Efficient Glazing for Residential class buildings. See the results from our extensive NatHERS 7 Star analysis below.

With the Federal release of the NCC 2022 we will benefit from increased energy efficiency performance from Glazing. AGG commissioned an in-depth analysis of NatHERS simulations to demonstrate the effect of Glazing specifically when changing to a 7 star minimum NatHERS built home. We modeled 3 common house types across Sydney, Melbourne and Hobart climate zones and by fixing conservative non-glazing fabric we then changed only the Glazing to uncover the simplest and most cost effective solution for compliance.

Results below from certified NatHERS simulations using FirstRate5 software and showing what lowest cost Glazing solution was required to achieve minimum 7 Star compliant Homes:

7 Star Glazing Compliance

	#1 Single Story Detached	#2 Double Story Townhouse	#3 Double Story Detached
<p>Key: SG = Single Glazed DGU = Double Glazed Unit Higher Performing Frame examples = Thermally Broken Aluminum, Timber, uPVC</p>			
<p>Sydney (Postcode 2000)</p>	 <p>SG Tinted Glass (eg. Grey Tint) + Regular SG Aluminum Frames</p>	 <p>SG Tinted Glass (eg. Grey Tint) + Regular SG Aluminum Frames</p>	<p> Insulglass <small>LowE Prime*</small> An Australian Glass Group Product</p> <p>Or</p> <p> Insulglass <small>LowE Plus*</small> An Australian Glass Group Product</p> <p>+ Higher Performing DGU Frames</p>
<p>Melbourne (Postcode 3000)</p>	<p> Insulglass <small>LowE Plus*</small> An Australian Glass Group Product</p> <p>+ Regular DGU Aluminum Frames</p>	<p> Insulglass <small>Classic*</small> An Australian Glass Group Product</p> <p>+ Regular DGU Aluminum Frames</p>	<p> Insulglass <small>LowE Plus*</small> An Australian Glass Group Product</p> <p>+ Higher Performing DGU Frames</p>
<p>Hobart (Postcode 7000)</p>	<p> Insulglass <small>LowE Plus*</small> An Australian Glass Group Product</p> <p>+ Regular DGU Aluminum Frames</p>	<p> Insulglass <small>Classic*</small> An Australian Glass Group Product</p> <p>+ Regular DGU Aluminum Frames</p>	<p> Insulglass <small>LowE Plus*</small> An Australian Glass Group Product</p> <p>+ Higher Performing DGU Frames</p>

For further detail on the results and full parameters of this analysis, see our **WHITE PAPER: NCC 2022 and Glazing in Homes**, on agg.com.au now.



Proven certified full frame performance data available in WERS

Australian Glass Group also understands the vital importance of certification and compliance of glass products. Our highest performing Softcoat LowE Double Glazed offerings are linked in WERS and our products are manufactured and certified to Australian Standards by an international certification body and compliance is certified and available on request in key areas including;

AS 2208 – Safety glazing materials in buildings

AS 4666 – Insulated glass units



Image: Insulglass LowE Plus® courtesy of @opulenthomes_

Key Findings

Sydney climate was the warmest of the 3 areas simulated and also a Cooling Climate with more energy required to cool rather than heat. Our models showed that of all Heating & Cooling energy required for the 3 homes here, only 25% was needed for Heating and 75% for Cooling. This resulted in more demand for its Glazing's Solar Control performance in blocking more heat from the Sun from entering inside the homes (ie. a lower Solar Heat Gain Coefficient – SHGC_w).

While Sydney #1 and #2 homes could still use single glazed glass, it required lower SHGC_w and so Clear glass would not comply. We required a tinted glass (ie. Grey Tint) to comply as the lowest cost Glazing solution. This comes with an obvious Grey look and lower Natural Light levels however, so moving to a more recommended Insulglass LowE Prime® double glazed unit allows a neutral look away from Grey Tint with higher Natural Light levels but still addressing the Glare factor of bright sun and good Solar Control blocking - ideal for such climate – as well as heightened Insulation (lower U-Value_w). If a Clear look is still desired, then an Insulglass LowE Plus® double glazed unit would be ideal and still comply with the same Clear look as standard clear glass in a DGU with highest Natural Light levels – and even higher performing Insulation (lower U-Value_w).

Melbourne climate being colder is a Heating Climate with more energy required to heat rather than to cool. Of the Heating & Cooling energy use here, 80% was needed for Heating and 20% for Cooling. This resulted in more demand for its Glazing's Insulation performance in blocking more inside heat from escaping outside through the Glazing (ie. a lower U-Value_w).

Hobart climate being the coldest modeled is by far a Heating Climate with significantly more energy required to heat rather than to cool. Of the Heating & Cooling energy use here, 98% was needed for Heating and only 2% for Cooling. This resulted in the majority of demand for its Glazing's Insulation performance in blocking more inside heat from escaping through the Glazing (ie. a lower U-Value_w) and also a higher SHGC_w value to allow more Passive Heat from the Sun inside through the Glazing.

While the results identify the lowest cost Glazing solutions to a 7 Star home, note that these are minimum performance factors and there are many alternative glass options that can exceed performance and can also add further comfort and wellbeing to those living inside, reduce energy costs even more and further assist with our carbon emission reductions eg:



LowE Advance®



LowE Max®



Audioshield is High Performance Acoustic Laminated Glass that can be incorporated into any Insulglass® DGU.

Proudly manufactured, stocked and supported in Australia by Australian Glass Group

Australian Glass Group offers a full customised range with all Insulglass® offerings

- Warm Edge spacer for further Thermal performance
- Tempershield® toughened options for strength and Grade A safety
- Obscure Patterns and Acid Etched for privacy
- Laminated for security and Grade A safety – available in:
 - Standard laminate
 - White translucent laminate for privacy
 - Audioshield® acoustic laminate for superior sound performance



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