

OptEmaTM

High Performance Insulated Glass

solos  glass
see the possibilities

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Creating your ultimate
residential haven

The OptEma™ difference

The OptEma™ range of high performance insulated glass units (IGU) is specifically designed to balance the benefits of high levels of natural light transmission with outstanding levels of thermal insulation and overall energy efficiency.

Playing a keyrole in managing both the heat flowing in and the heat flowing out of the glazed elements of the building, OptEma™ helps to make your home cooler in summer and warmer in winter whilst allowing the room to bathe in very high levels of natural light. Offering a broad range of glazing options and a host of additional solutions which help to create the ultimate residential haven, OptEma™ is an ideal IGU solution for both residential new build and renovation projects. By offering a range of product combinations, OptEma™ IGU's provide solutions to a number of important criteria which both offer protection and add value to the home and its occupants.

By combining the range of solutions offered by the OptEma™ suite of products with the added benefits of the OptEseal™ warm edge IGU spacer, OptEma™ Plus helps to both optimise a windows overall level of energy efficiency performance and provide some of the most thermally efficient residential window and door systems currently available in Australia. Offering a number of bespoke performance and aesthetic benefits, OptEma™ Plus is helping to create both a new generation of high performance residential windows and doors as well as a much more energy efficient future.



Interiors inspired by innovation

The OptEma™ product range

OptEma™ Combinations*	SHGC	VLT	U VALUE
4mm EnviroClear® // 4mm OptEma™	0.60	0.80	1.37
5mm EnviroClear® // 5mm OptEma™	0.59	0.79	1.37
6mm EnviroClear® // 6mm OptEma™	0.58	0.79	1.36
4mm EnviroTone® Grey // 4mm OptEma™	0.42	0.50	1.37
5mm EnviroTone® Grey // 5mm OptEma™	0.37	0.42	1.37
6mm EnviroTone® Grey // 6mm OptEma™	0.34	0.37	1.36
4mm Matlucent™ // 4mm OptEma™	0.60	0.80	1.37
6mm Matlucent™ // 5mm OptEma™	0.58	0.79	1.36
6mm Matlucent™ // 6mm OptEma™	0.58	0.79	1.36
6.5mm Silencia® // 5mm OptEma™	0.55	0.80	1.36
6.5mm Silencia® // 6mm OptEma™	0.55	0.78	1.36
6.38mm Protekta™ // 5mm OptEma™	0.56	0.78	1.36
6.38mm Protekta™ // 6mm OptEma™	0.55	0.78	1.36
7.52mm SecurView™ // 5mm OptEma™	0.55	0.78	1.35
7.52mm SecurView™ // 6mm OptEma™	0.55	0.78	1.34
6.38mm Protekta™ WhiteTrans // 5mm OptEma™	0.46	0.61	1.36
6.38mm Protekta™ WhiteTrans // 6mm OptEma™	0.46	0.60	1.36

SHGC (Solar Heat Gain Coefficient)

The total amount of heat transmitted through the glass into the inside of the building is represented by the SHGC. Each glass type has a different SHGC. The lower the number the better the solar control performance of that particular glass product.

VLT (Visible Light Transmittance)

The amount of visible light transmitted through the glass. This is represented as a %. A higher number means more light is passing through the glass.

U Value

A measure of how effective glass (and a window) is in preventing heat escaping from the inside to the outside of a building. The lower the U Value, the greater the resistance the glass has to heat flow and therefore the better insulator it is. U Value is measured in W/m2k.

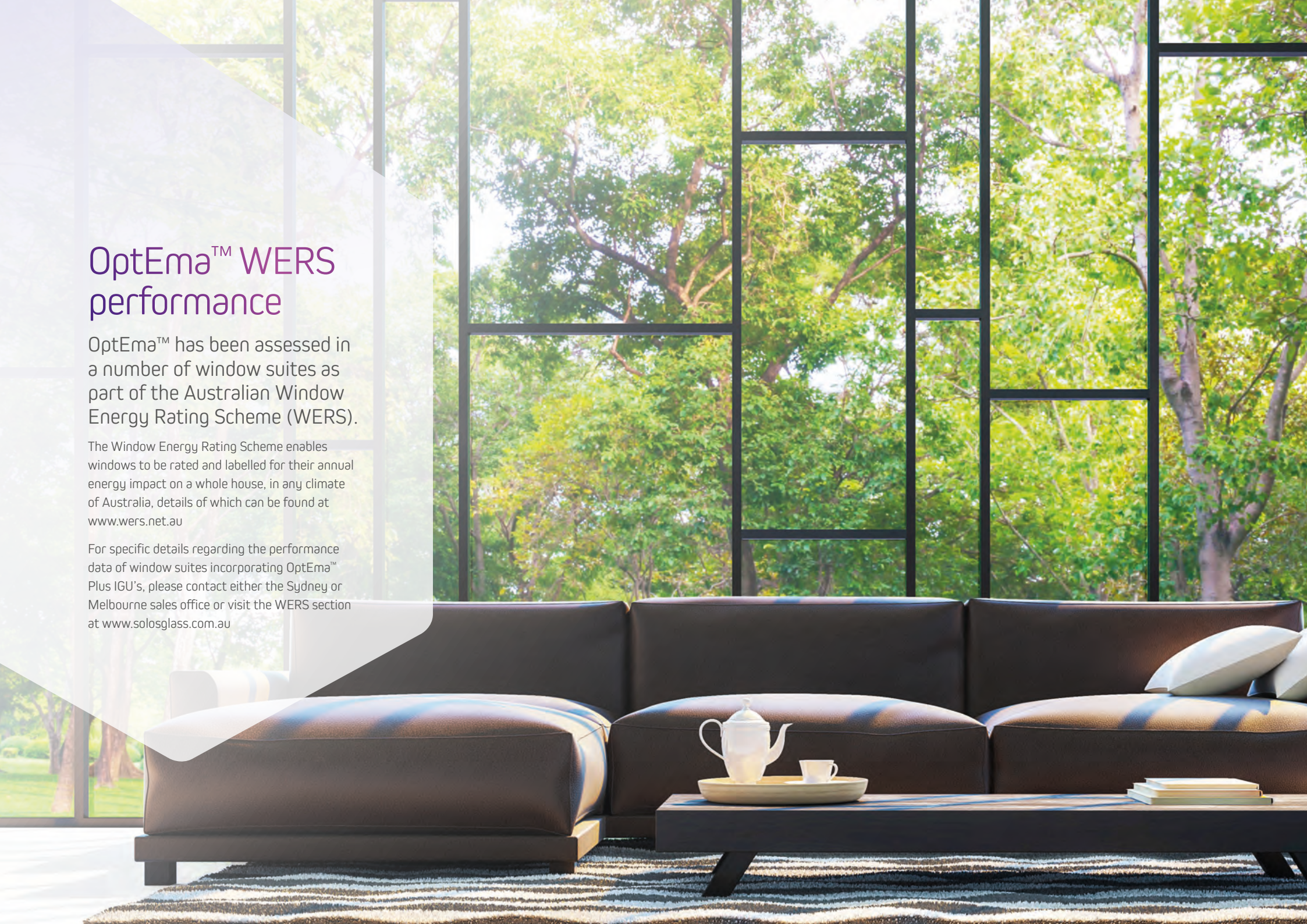
*All glass combination data is based on a 12mm argon filled space as standard. All performance data is based on the Low E coating being on surface 3 of the double glazed unit.

OptEma™ WERS performance

OptEma™ has been assessed in a number of window suites as part of the Australian Window Energy Rating Scheme (WERS).

The Window Energy Rating Scheme enables windows to be rated and labelled for their annual energy impact on a whole house, in any climate of Australia, details of which can be found at www.wers.net.au

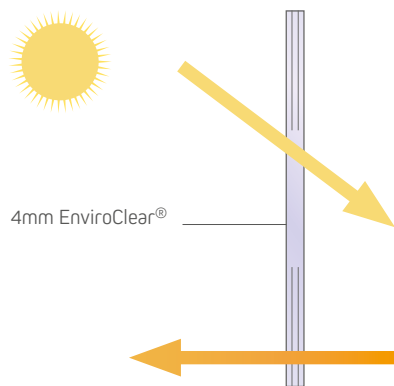
For specific details regarding the performance data of window suites incorporating OptEma™ Plus IGU's, please contact either the Sydney or Melbourne sales office or visit the WERS section at www.solosglass.com.au



Glass only performance comparison

Single Glazed 4mm EnviroClear®

Outside



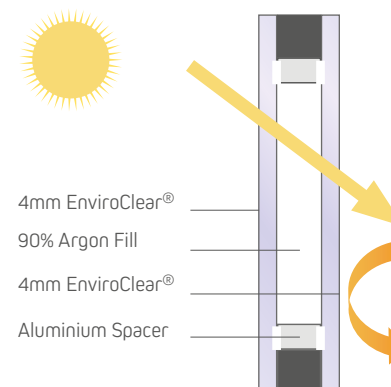
Inside

84% Passive Solar Heat Gain

- Very poor thermal insulation performance
- U Value: 5.9
- 89% light transmission
- Exceptional clarity
- Poor condensation control
- Poor internal comfort control

KlymetControl® IGU with 4mm EnviroClear®

Outside



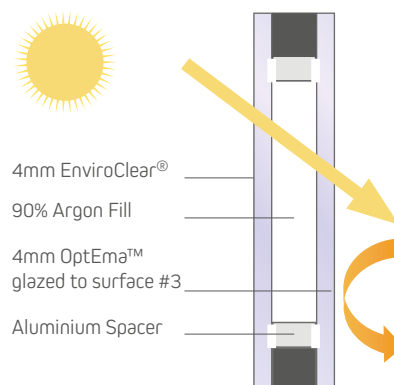
Inside

74% Passive Solar Heat Gain

- Improved thermal insulation over single glazed 4mm float glass
- U Value: 2.7
- 80% light transmission
- Exceptional clarity
- Improved condensation control
- Improved internal comfort control

OptEma IGU with 4mm EnviroClear®

Outside



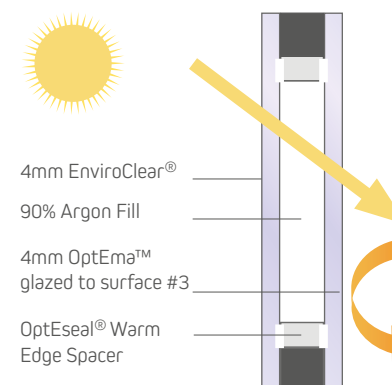
Inside

60% Passive Solar Heat Gain

- 85% improvement in thermal insulation performance over a KlymetControl® IGU with 4mm EnviroClear®
- U Value: 1.40
- 80% light transmission
- Exceptional clarity
- Excellent condensation control
- Excellent internal comfort control

OptEma™ Plus IGU with 4mm EnviroClear®

Outside



Inside

60% Passive Solar Heat Gain

- Up to 9% improvement in U Value over an OptEma™ IGU when glazed in a range of assessed framing systems
- 80% light transmission
- Exceptional clarity
- Exceptional condensation resistance
- Enhanced acoustic performance
- Beautiful flat sight lines with 90° corners
- Outstanding internal comfort

OptEma™ product benefits

Improved comfort

By helping to capture the high levels of natural light we value and manage the temperature levels we experience.

OptEma™ plays a positive role in both contributing to our feelings of well being and creating the levels of comfort we all hope to experience from our home.

Increased use of room space

In winter, windows that are not energy efficient are cold, draughty and are simply not comfortable. Furniture is huddled near the centre of a room and interior design is compromised.

With the use of OptEma™ as the inner pane of an IGU, the actual temperature of the glass changes and becomes warmer, resulting in less cold down draughts near the surface of the glass caused by convection. In addition, the warmer glass surface minimises the likelihood of condensation forming on the room side of the IGU.

Safety

OptEma™ is available with both panes toughened to provide cost effective impact resistance for a wide range of applications requiring a Grade A safety glass.

Alternatively the use of Protekta™ laminated glass within the IGU provides Grade A safety along with other benefits such as additional protection from penetration through the glass, protection from UV rays and improved integrity of the glass panel if broken.

Noise reduction

Silencia® specialist acoustic laminated glass installed as one pane of an OptEma™ IGU helps to significantly reduce unwanted noise from a number of different sources including traffic, trains and aircrafts.

Your own private oasis can be created whilst enjoying the high levels of light transmission and energy efficiency inherent in an OptEma™ IGU.

Security

Offering high levels of resilience and protection from intruders wishing to break through the glass using hand tools or bricks, OptEma™ is also available incorporating SecurView™ security glass.

UV protection

Installing any laminated product (Protekta™, SecurView™, Silencia®) within an OptEma™ IGU make-up, ensures a high level of resistance to UV penetration.

This enables >99% of all ultra violet light to be screened out, in turn protecting carpets and furnishings from premature fading.

Privacy

Where privacy is a main concern, for example in bathrooms, an OptEma™ IGU can incorporate either a Matlucent™ or Protekta™ White Trans glass solution. Either solution offers excellent levels of opacity without compromising the levels of light transmission or energy efficiency.

Enhance your home

Glass is a unique material. It offers near endless potential in transforming a space both practically and aesthetically.

With recent advances in technology have widened these possibilities even further. While glazing may often be thought of as a purely practical facet of architecture and construction, it plays a significant part in interior design too.



It's what's inside that counts

With lighting in general being an integral feature of interior design, the inclusion of natural light is one of the biggest benefits that glass features bring to a space.

By flooding an interior space with daylight, quality glazing such as OptEma™ or OptEma™ Plus can transform a space from one that simply looks brilliant to one that makes us feel brilliant.





Bringing interiors to life



For additional product details
and warranty information
please visit our website.

www.solosglass.com.au
possibilities@solosglass.com.au
Call 1800 4SOLOS
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