

An MHG Company

OptEmaTM

High Performance Insulated Glass

solos  glass
see the possibilities

OptEma™ High Performance Insulated Glass

Creating your ultimate residential haven

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 key role 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.

OptEma™ - See And Feel The Difference

OptEma™ offers us the ability to feel at one with our environment whilst managing its key attributes and protecting us from some of its harsher elements. With demand increasing for high performance residential glazing which facilitates desired levels of natural light whilst achieving exceptional levels of energy efficiency and comfort, OptEma™ helps to provide the ideal solution.

OptEma™ Product Range

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

*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™ High Performance Insulated Glass

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

It is often the case that because people find it cold near windows that are not energy efficient, furniture is huddled near the centre of a room and space around the edges of the room is not utilised effectively. With the use of OptEma™ as the inner pane of an IGU, the actual temperature of the glass changes and becomes warmer. As such there are less cold downdraughts near the surface of the glass caused by convection and as such an increased amount of available room space to utilise. In particularly cold weather conditions the warmer temperatures of the glass panes help to minimise the chance 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 also provides Grade A safety along with other benefits such as additional protection from penetration through the glass, protection from UV rays which can fade furnishings and improved integrity of the glass panel if broken.



OptEma™ High Performance Insulated Glass

Security and resistance to unwanted entry

Offering high levels of resilience and protection from intruders wishing to break through the glass using hand tools or bricks in either a 'smash and grab' scenario or a more sustained attack, OptEma™ is also available incorporating SecurView™ security glass.

Noise reduction

The use of Silencia™ specialist acoustic laminated glass as one pane of an OptEma™ IGU helps to significantly reduce unwanted noise from a number of different sources, including traffic, trains and aircraft. The creation of your own personal oasis can be achieved whilst enjoying the high levels of light transmission and energy efficiency inherent in an OptEma™ IGU.

Reduction of UV fading

The use of any laminated product (Protektā™, SecurView™, Silencia™) within an OptEma™ IGU make-up, for either safety, security, privacy or noise reduction purposes, ensures a high level of resistance to UV penetration. This enables >99% of all ultra violet light to be screened out, in turn helping to protect 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 Protektā™ White Trans glass solution. Either solution offers excellent levels of opacity without compromising the levels of light transmission or energy efficiency.



OptEma™ High Performance Insulated Glass

Product options

OptEma™ incorporates one of the world's leading high performance Low E glass products within a hermetically sealed IGU which also incorporates an inert gas fill as standard and a choice of product from the extensive SOLOS Glass range as the additional glass panel.

- EnviroClear™ annealed or toughened Clear Float
- EnviroTone™ annealed or toughened Grey Float
- Matlucent™ annealed or toughened etched glass
- Silencia™ laminated Acoustic Glass
- Protekta™ laminated safety glass
- SecurView™ security laminated glass

OptEma™ - Increased Glazing Area

Because of its high performance characteristics, OptEma™ offers increased glazed area over that available through the use of normal clear glass. Also, because the Low E glass component used in the OptEma™ range comes in both 4mm and 6mm thicknesses, the maximum glazed area of an OptEma™ IGU is 6m²* when used as a 2 x 6mm toughened glass configuration.

OptEma™ is available with spacer widths of between 6mm and 20mm, the finished thickness and final glazing of the double glazed unit being dependent on the rebate of the frame, the level of thermal insulation, the additional performance required or the size of the double glazed unit.

*Provided the selected combination is compliant with AS 1288

Minimum Size

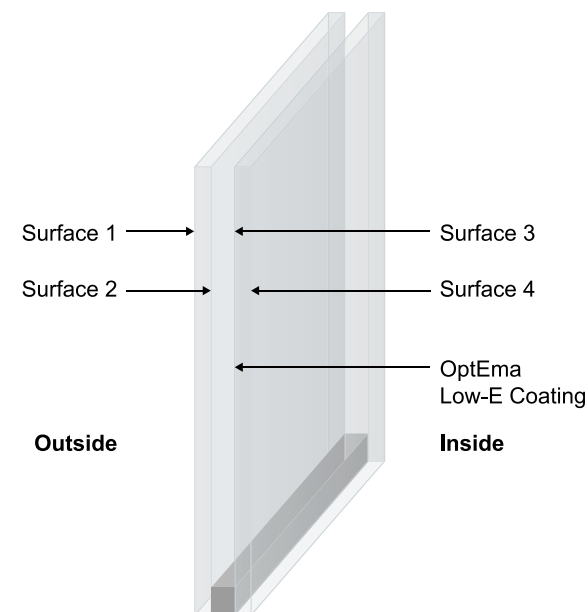
210mm x 410mm

Maximum Size*

2400mm x 3150mm

Spacer Widths

6mm – 20mm black aluminium (squares, rectangles and straight edge shapes).



OptEma™ High Performance Insulated Glass

Benefits

- Very high levels of light transmission with outstanding overall energy efficiency
- The OptEma™ high performance characteristics increases the glazed area of the home when compared to normal clear glass
- OptEma™ plays a positive role in contributing to our feelings of well being and creating levels of comfort we all hope to experience from our home
- Available in an overall thickness of between 14mm and 32mm to suit most window and door framing suites
- Helps manage the internal environment of the home by helping to control the amount of light and heat entering the home and the amount of heat leaving the home
- Argon gas filled IGU space as standard to improve thermal insulation performance
- Increases the amount of room space available by minimising cold down draughts near the inside of the window

Applications

- Fully framed residential windows and doors
- Rooflights