An MHG Company

KlymetControl® Plus

Superior Insulated Glass Solutions

solos glass

see the possibilities

KlymetControl® Plus Superior Insulated Glass Solutions

Taking on the toughest commercial glazing demands

Even over the course of one year, both residential and commercial glazing systems not only face widely fluctuating temperatures, but they are bombarded with high levels of UV rays, barometric pressure changes, strong winds, driving rain and a wide range of humidity levels. Multiply that over time and the need for an IGU to provide structural strength and durability as well as outstanding levels of thermal performance becomes increasingly apparent.

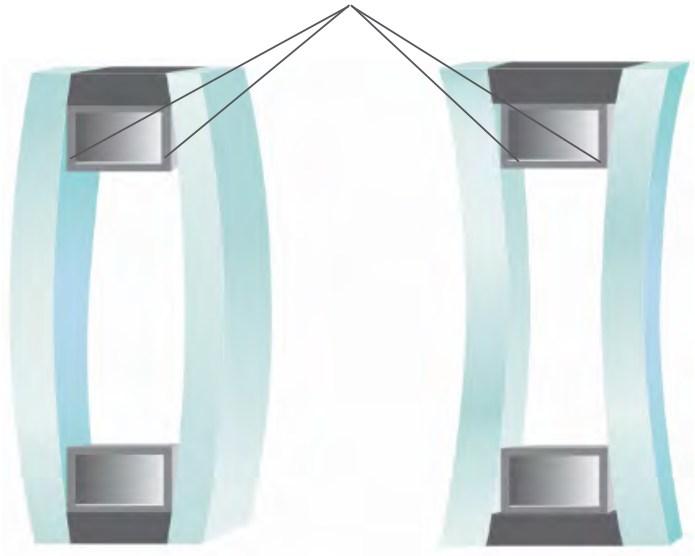
The KlymetControl® Plus IGU range, incorporating the OptEseal™ warm edge spacer, takes on the toughest glazing conditions and gives any window an advantage in reducing energy costs and ensuring enhanced sustainability, durability and stability as well as providing outstanding comfort to any environment.

KlymetControl® Plus – the IGU with the built in memory

Because the technology behind our OptEseal™ spacer is based on thermoset polymers incorporating crosslinks which become permanently set during manufacture, OptEseal™ has 100% memory which means it can't be re-shaped subsequent to the heating, cooling and re-heating cycle. Whilst OptEseal™ expands and contracts on a daily basis as environmental conditions change, it will always return to its original shape. Not so rigid spacers, such as aluminium, which fail to compensate for the natural expansion and contraction that occurs on a daily basis, which may in turn induce edge seal stress, stress cracks and eventual premature seal failure.

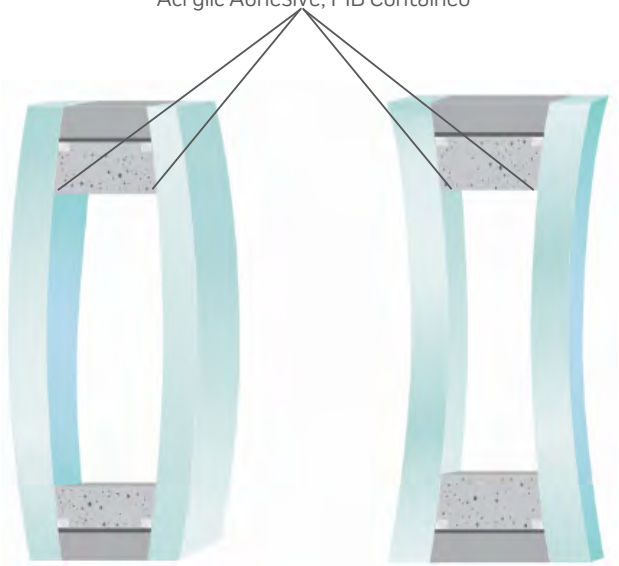
IGU with aluminium spacer

PIB Not Contained



KlymetControl® Plus

Acrylic Adhesive, PIB Contained



KlymetControl® Plus Superior Insulated Glass Solutions

KlymetControl® Plus – taking away the vulnerable edge

80% of the energy lost through a window occurs at the edge of the glass. It's at the edge of the glass where the glass or IGU is most vulnerable to heat loss, cooling loss and condensation during cooler months.

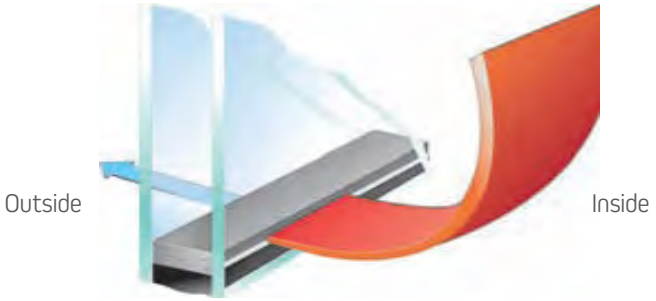
Considered to be a conductive energy waster, metal spacers provide a direct path for heat loss, minimising heat flow resistance and reducing the performance of even the highest performing glass products.

The fact that the OptEseal™ spacer has no metal means that the ability of KlymetControl® Plus to conduct heat away from the inside to the outside is considerably reduced, effectively blocking the heat escape path and improving the thermal insulation of the installed window system.

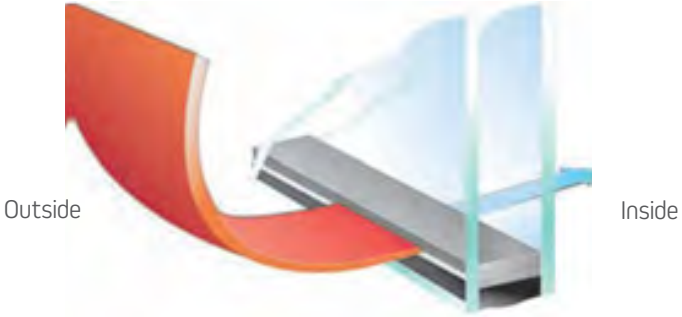
Similarly, the OptEseal™ spacer reduces heat transfer from the outside to the inside through the spacer on warm or hot days, reducing the overall solar heat gain into the building.

By effectively blocking the heat path, on warm days the OptEseal™ spacer also enables the cooler air on the inside of the building to stay inside, enabling KlymetControl® Plus IGU to assist in providing a better controlled internal environment all the year round.

Prevents heat loss on a cold day



Reduces heat gain on a warm day

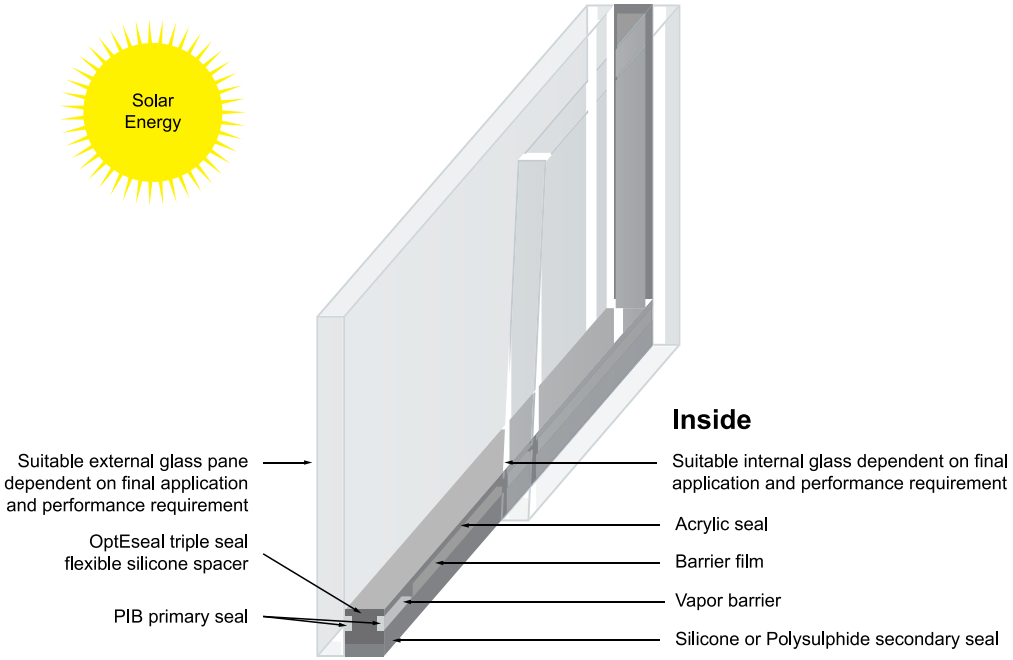


KlymetControl® Plus Superior Insulated Glass Solutions

KlymetControl® Plus – sustainable and durable

During the manufacturing process, most IGU's have a polyisobutylene (PIB) sealant applied first to the aluminium spacer which acts as the moisture barrier on the inside of the IGU. The secondary seal of Silicone or Polysulphide is then applied to act as the main structural sealant, holding the IGU together.

KlymetControl® Plus however incorporates a pre applied structural seal located on the inside of the OptEseal™ spacer which takes the form of a pressure sensitive acrylic adhesive which in turns forms an incredibly strong bond between the glass and the OptEseal™ spacer. The secondary seal of either silicone or polysulphide then forms the gas/moisture seal on the outside of the IGU where it will have the most benefit. The result is a very durable, automatically applied multi edge seal IGU which provides consistency in performance, unit after unit.



Extensively tested and used Worldwide

The silicone based thermoset technology supporting the manufacture and use of the OptEseal™ warm edge spacer in KlymetControl® Plus ensures an IGU which not only provides structural integrity with flexibility, but also ensures proven durability with UV stability.

Supporting its long term project history in some of the World's most demanding climates, OptEseal™ has been extensively tested Worldwide to Internationally recognised standards including:

North America

- ASTM E2188/E2190 (HIGS) Weather Cycle Test, where the durability of the OptEseal™ spacer has been consistently proven by passing multiple rounds of accelerated aging in cycling conditions from + 60^{0}C to -29^{0}C, with 100% UV and 95% RH
- ASTM E2189
- Dade County Hurricane Test
- Structural testing to ASTM E330-02 up to 155psf (7425 Pa)Europe
- EN1279
- DIN 1286 Teil 1&2
- BSI 5713

With sustainability, durability, thermal efficiency and structural integrity working closely together to underpin future facade glazing programs, KlymetControl® Plus sets the new standard for even the most demanding commercial glazing installations.