



Takenaka HQ, Japan

DuraComfort is an insulated glass unit formed by sealing non-convective space in between two or more plies of glass. The pieces of glass are separated by a spacer around the perimeters which is filled with desiccant to absorb moisture. The spacer (available in mill or coloured finish) will be sealed by two sealants, giving rise to a hermetically sealed space between the pieces of glass.

The primary sealant of polyisobutylene provides maximum protection against moisture vapour transmittance as well as minimises thermal edge conductance between the spacer and the glass, hence saving energy. DuraComfort offers different secondary sealants for versatility in product application, as well as maximum strength and protection from stress and extreme temperatures.

DuraComfort can be used for buildings with exceptional high heating or cooling requirements; places that require temperature and humidity to be strictly controlled; environments that need regulated atmosphere and prevention of condensation as well as areas which require sound insulation.

Triple Glazing

DuraComfort Triple Glazing Unit (TGU) is made up of three panes of glass separated by 2 spacer units with the flexibility of utilizing one or two panes of Low Emissivity glass for optimum performance results, to provide maximum energy savings and improved thermal comfort.

DuraComfort TGU insulates up to 40% better than a Low Emissivity double glazing unit of the same source, provides approximately 60% less transmitted heat for better thermal comfort, and offers better condensation protection and acoustic performance for the external glass façade.

Product Features

Heat Insulation

The enclosed layer of inert gas amplifies the insulation capability of DuraComfort, hence preventing cold or warm draughts and providing a pleasant internal environment all day round. An increase in cavity space results in an increase in sound insulation properties.

Prevention of Dew Condensation

For monolithic glass, the temperature difference between the outside and inside of a room will often lead to condensation. With DuraComfort, the insulating effect of the inter-pane inert gas layer makes it difficult for the glass to become cold and consequently harder for dew condensation.

Acoustic Barrier

With the inter-pane layer of inert gas, transmission of sounds is reduced, saving efforts to reduce noise pollution with other means. The amount of sound reduction depends on the configuration of the insulated glass.

Versatility

DuraComfort allows for configuration flexibility with varying thickness and glass types to match the requirements of individual glass structures.

Note: In summer conditions, Low E and reflective coatings display best results on surface #2 of outdoor glass in terms of shading coefficient (SC).

Note: U-Value is based on American Society of Heating, Refrigerating and Air Conditioning Engineers' standards.



Shueisha, Japan

Uses and Applications

- Green buildings
- Airport control towers
- Chillers
- Computer rooms
- Hotels
- Hospitals
- Laboratories
- Office buildings
- Residences
- Train glass windows
- Areas near highways and railways
- Airports



Kenmin Kyosai, Japan

<u>Types of gasses</u>	Air	Argon	Krypton
<u>Usage</u>	Used frequently	Used frequently	Used occasionally
<u>Energy efficiency</u>	Energy efficient	More energy efficient	Most energy efficient
<u>Cost</u>	Cheapest	Slightly more expensive than air, but can improve U -value by over 30%	Most expensive

Specifications

Production Sizes

	DuraComfort	
	Annealed	Tempered / Heat-Strengthened / Tempered Heat-Soaked
Minimum Size (W/mm x H/mm)	300 x 300	300 x 300
Maximum Size (W/mm x H/mm)	2,700 x 6,000	2,500 x 5,700
Glass Thickness (mm)	11 to 52	13 to 52
Other measurements	Standard Airspace Thickness (mm): 5, 6, 8, 10, 12, 14, 16 ,18	

Maximum glass weight is 1 tonne per unit.

Maximum thickness of either double glazing or triple glazing unit is 52mm.

Applicability

DuraComfort can be formed using a range of Design glass such as Ceramic Frit glass, Digital Print glass and Low Iron glass.

When used with heat-absorbing glass, heat reflective glass and Low Emissivity Glass in our Eco range, Dura-Comfort will enhance heat insulation and further reduce the load on the cooling and heating system. Low emissivity and reflective coatings are applicable on surface #2 of outdoor glass for best performance (in summer conditions) in terms of shading coefficient (SC) and U-value.

Other custom combinations are also available upon request.