



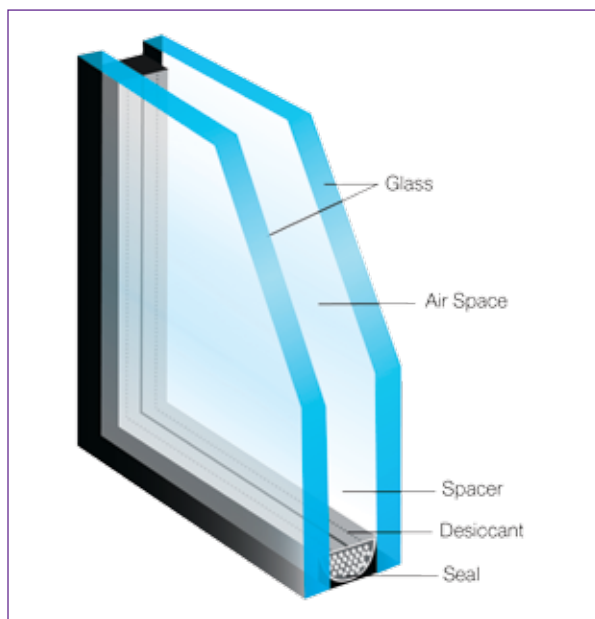
Cryst   
Safety Glass

CSG  
INSULATING  
GLASS  
(or also known as  
Double Glazing unit)

## What is Insulating glass and how is it made?

CSG Insulating Glass refers to two or more lites of glasses sealed around the edges with an air space between, to form a single unit. It is commonly referred to as an “IG unit”.

CSG adopts Austria’s LISEC automatic insulating glass production line. The different pieces of glasses are separated with an aluminium tube and the inside is filled with desiccant. The hollow space is inflated with dry air or inert gas and sealed with butyl rubber, polysulphide sealant, or structural adhesive, to form glass with dry space.



### Additional information about the type of gas used to fill an IGU

Using argon in the air space between the two panes of glass provides further insulation, as these gases are denser than air and less likely to conduct heat through the IGU. Combined with a low-e glass coating, these gases work to improve the window’s overall U-value. The lower the U-value, the better the insulating glass unit.

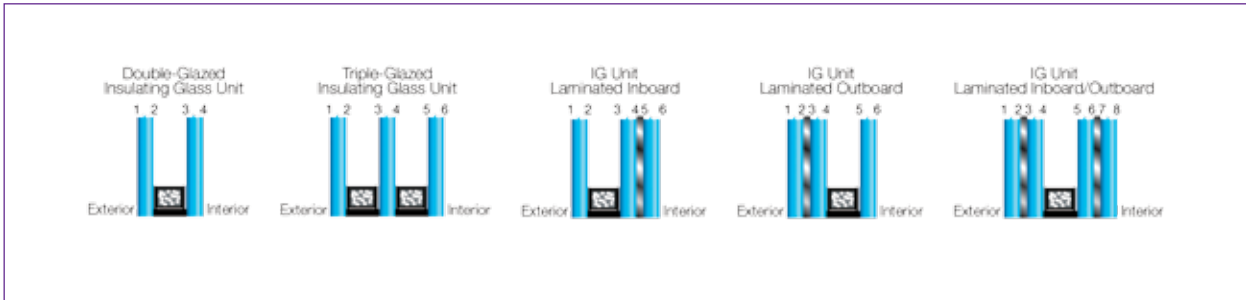
When 90 percent argon gas fill is used in a low-e IGU instead of air, the window’s U-value can be improved by up to 16 percent.

### Properties

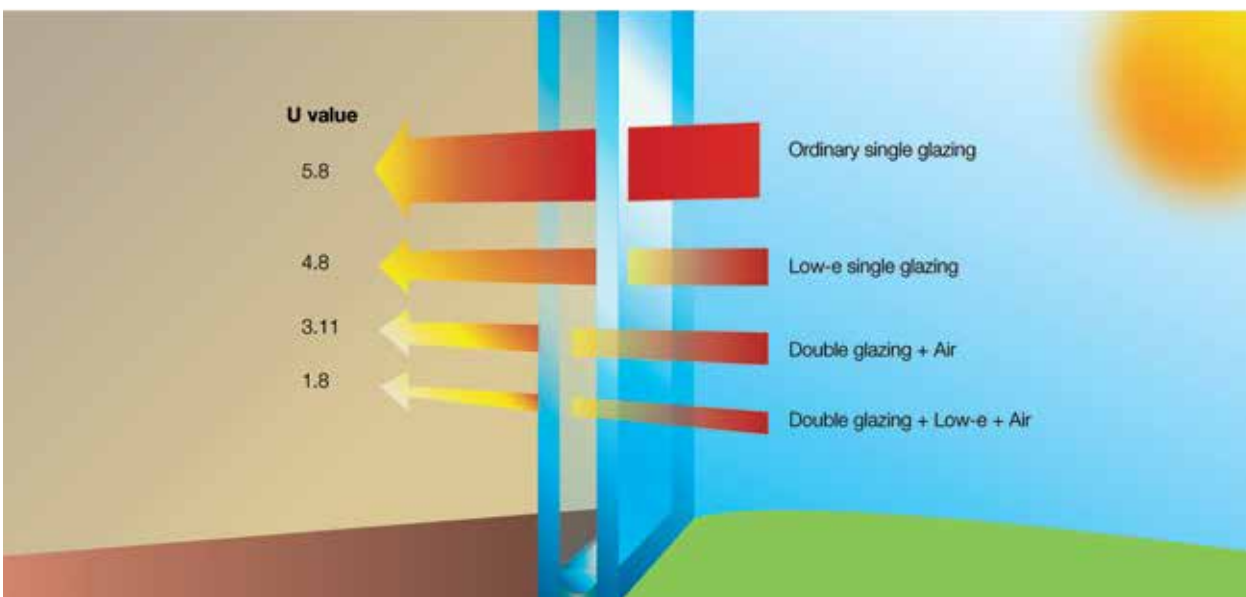
CSG Insulating Glass is the most effective way to reduce air-to-air heat transfer through the glazing. When used in conjunction with low-e and or reflective glass coatings, IG units become an effective means to conserve energy and comply to green building requirements. The most common architectural insulating glass unit configuration is 6mm glass / 12mm air space / 6mm glass.



## Common Glass Configurations

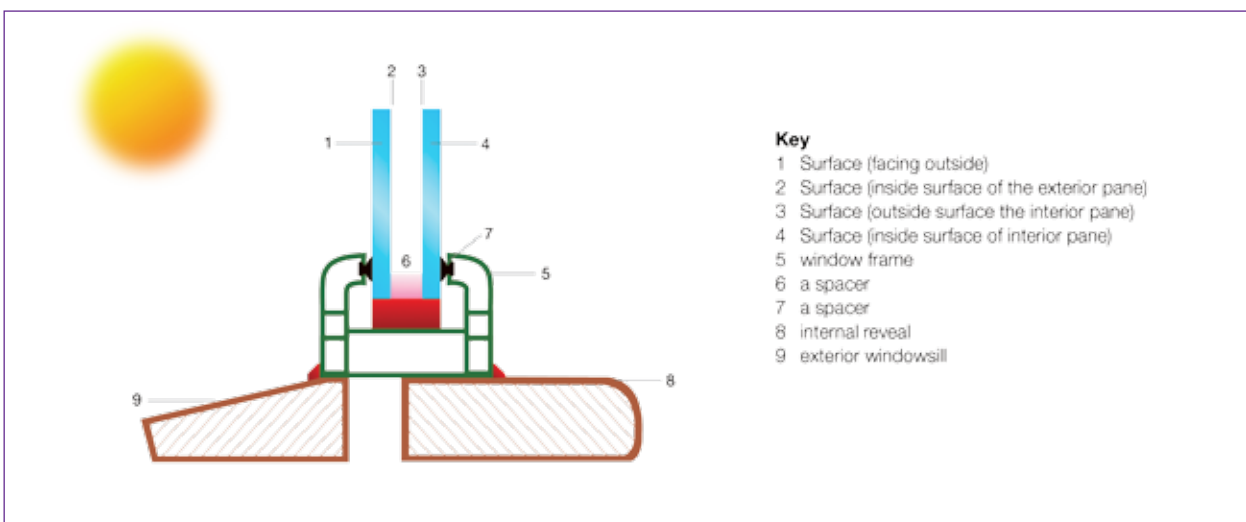


## Double Glazing – Heat Loss Reduction



## Double Fixed Window Diagram

A sectioned diagram of a fixed Insulated Glazed Unit (IGU)



### CSG Insulating Capabilities

Equipment	Nos	Brand	Max Size (mm)	Min Size (mm)	Nominal Thickness (mm)	Standard
Insulating Glass Line	1	LISEC	2140 x 3300	500 x 500	6.38-39.9	-



## Edge Deletion Machine

Low-e glass that needs to go through insulation needs to undergo edge deletion. Edge deletion machine is a machine that removes the Low-E coating from the edge of a glass panel.

This process is necessary because the low-e coating on the glass surface will affect adhesion with insulated glass sealants. By removing the edge coating, allows the sealant to bond directly to the glass.

Equipment	Nos	Brand	Max Size (mm)	Min Size (mm)
Edge Deletion Machine	1	British TRIO microprocessor	2440 x 3000	300 x 300

