



IQ Glass® Technical Description

On the insides of both panes of **IQ Glass®** there are coatings of transparent metal oxides. When a voltage is applied, the inside pane acts as an electrical resistor creating a radiant heat. The outer pane reflects the heat generated back inside, while simultaneously blocking the cold outside. A non-toxic, insulating gas called krypton is placed between the panes, achieving an amazing level of thermal insulation, currently unmatched in the industry. Both pieces of **IQ Glass®** consist of tempered glass (also known as safety glass) five times stronger than normal glass. In the event that your glass is broken, it will fracture into distinct fragments, immediately rupturing the glass' electrical activity and protecting you and your loved ones from any harm.



Radiant heat

IQ Glass® is an extremely effective radiant heating system. Radiant heat is a direct heat that heats all objects in its path not the air around them. Cold windows draw radiant heat from you creating a feeling of a cold draft; **IQ Glass®** does the opposite and radiates heat to you.

With radiant heat your body will feel warmer even though the actual air temperature may be cooler. The best natural radiant heat is the sun. Have you ever thought about the fact that whilst skiing in the Alps with freezing air temperatures you still feel warm from the radiant heat created by the sun? This is the radiant heat **IQ Glass®** is based on!

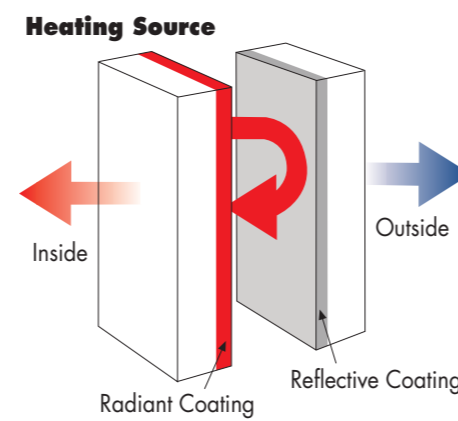
Lower temperatures required

CEBTP, a highly acclaimed scientific control institute in France conducted a thermal research study comparing a conservatory heated with the traditional convection system to a conservatory heated with **IQ Glass®**.

In climatologically identical circumstances, CEBTP observed that with the convection-heated conservatory, the air had to be heated to 77°F for the occupant to experience a sensation of warmth approximating 68°F.

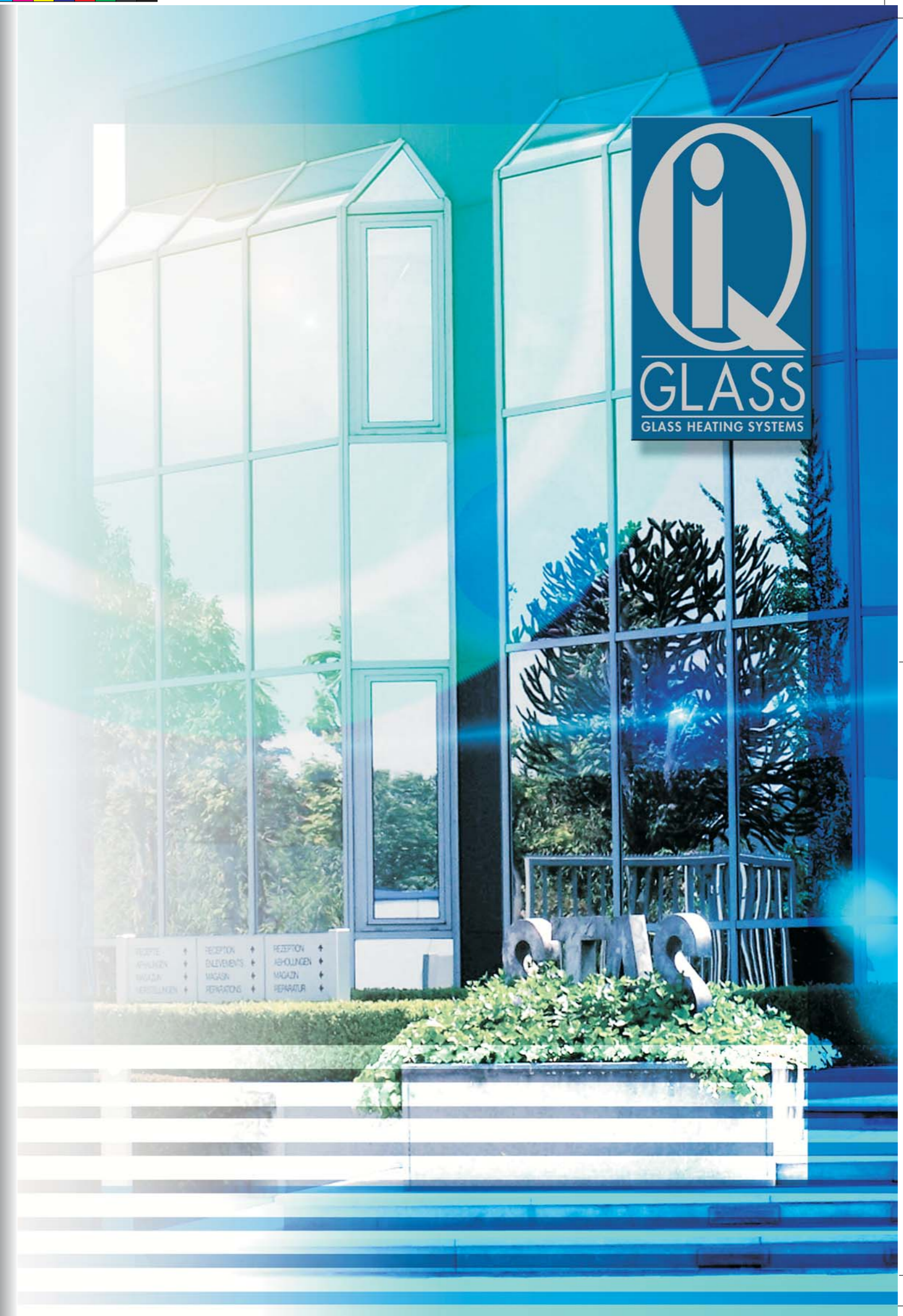
With **IQ Glass®** air temperatures of only 64°F provided a sensation of warmth of 73°F.

In effect, **IQ Glass®** provided a feeling of 9°F more warmth with 9°F less heating therefore less energy was needed.



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IQ Glass®

IQ Glass® is **NEW** and stands in a league of its own.

IQ Glass® is electrically heated double-glazing that quickly and effectively radiates an even distribution of heat that reaches and maintains the perfect room temperature you desire.

IQ Glass UK Ltd has completed various projects in the UK ranging from new builds, refurbishments, extensions, swimming pools and conservatories. For these projects **IQ Glass®** was the sole heating system and no other heating systems were required.



Why IQ Glass® Heating?

IQ Glass® can now ensure that glass surfaces are no longer the coldest part of the room but instead a very good thermal insulator with a remarkable centre pane U-value (insulation value) of 0.92 W/m²K.

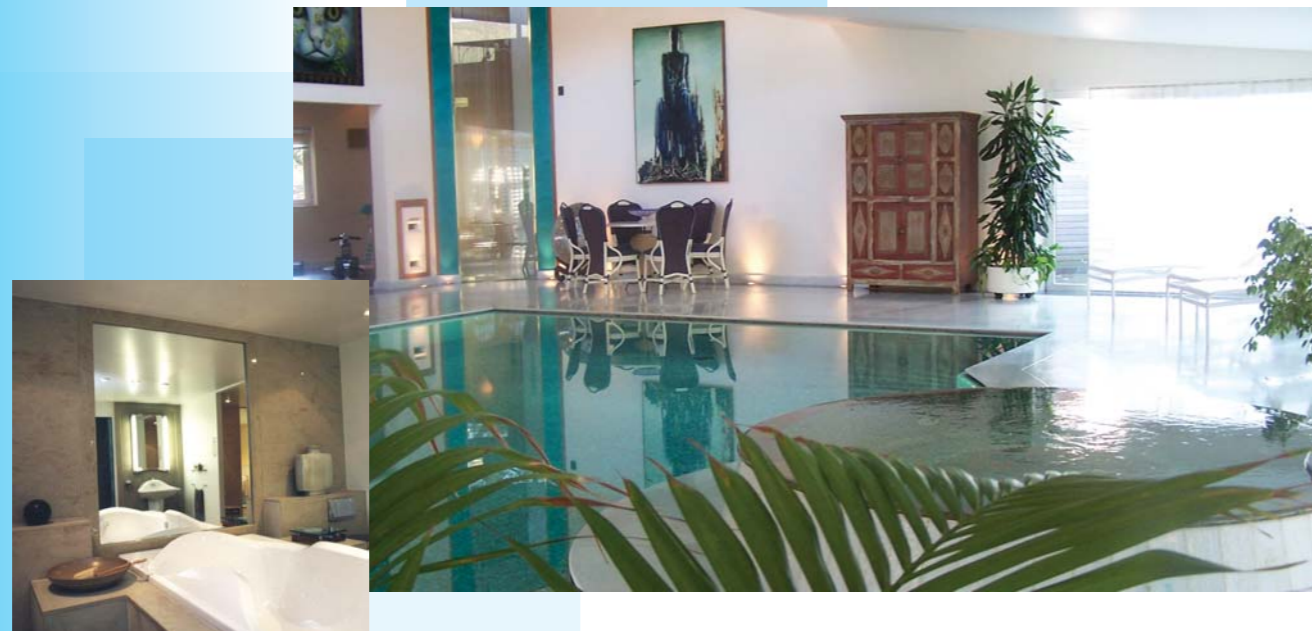
IQ Glass® is a radiant heating system. Radiant heat is widely recognised as being the most effective, comfortable, healthy and energy efficient method of heating.

IQ Glass® also has the opposite effect during warm summer weather; the outer panel repels the blazing heat and ultraviolet rays away from your home. That's comfort for every day of the year, winter and summer.

IQ Glass® Test Results

Energy efficiency studies performed in 2007 by the highly acclaimed Dutch test centre TNO reveal that up to 25% less energy is required using **IQ Glass®** double-glazed units than low-E glass with a U-value of 1.6 W/m²K and traditional radiators. The gain in energy reduction is even more significant for the **IQ Glass®** triple glazed units with a U-value of 0.85 W/m²K. No discernable energy loss could be measured to the outside environment with a 250W/m² input!

Thanks to its incredibly low U-value, a solar gain of 54% and high energy saving, **IQ Glass®** gives you more flexibility to comply with the building regulations.



IQ Glass® heating controlled.

Using a thermostat you program in a required room temperature, a microprocessor ensures that the glass surface temperature is sufficient to maintain it. Whilst the system is in operation, the microprocessor ensures that the glass surface temperature will never drop below 20°C, giving the occupants the maximum level of comfort at all times. Sensors on the windows indicate when more or less heat is required. The microprocessor regulates **IQ Glass®** surface temperatures at all times ensuring a consistent temperature.

Other major benefits of IQ Glass®

- **IQ Glass®** stays condensation free
- **IQ Glass®** is maintenance free
- **IQ Glass®** reduces dust (which is ideal for respiratory conditions)
- **IQ Glass®** can be used as a heated mirror or glass radiator
- **IQ Glass®** can be connected to solar panels
- **IQ Glass®** eliminates cold window surfaces
- **IQ Glass®** can enhance security by connecting to an alarm system
- **IQ Glass®** provides optimum comfort
- **IQ Glass®** operates with opening doors and windows

The **IQ Glass®** technology is also used in the very popular **IQ Glass®** heated mirrors. The **IQ Glass®** heated mirrors are a solution for bathroom mirror condensation and for producing heat in areas where there is not enough glass available to heat the room.

All components of **IQ Glass®** are CE marked and are IPX4 and CEBEC approved.

