



Pilkington K Glass™

Up to 30% better insulation than ordinary double glazing.



PILKINGTON

How Pilkington K Glass™ makes double glazing more effective.

If you want to replace your windows, or build a new conservatory, consider Pilkington K Glass™.

It makes double glazing as effective as triple glazing and cuts fuel bills.

Just the kind of breakthrough you might expect from a company that's been leading the way in glass technology for 172 years.

- Double glazing as effective as triple glazing
- Allows you to stay comfortable at a lower thermostat setting
- Reduces unsightly internal condensation
- Helps to save energy and vital natural resources
- Allows you to increase the glazed area of a building without increasing heat loss

How Pilkington K Glass™ works

Pilkington K Glass™, which usually forms the inner pane of a double glazing unit, allows less heat to escape through your windows than ordinary glass. Thanks to a special energy saving coating which lets the sun's rays through, but reflects heat from fires and radiators back into your home. Heat which ordinary double glazing allows to escape.

How much can you save?

The superior insulation of Pilkington K Glass™ saves you money on fuel bills. The following table shows a typical example.

	Annual space heating costs (£)	Annual savings compared with single glazing (£)
Single glazing	194	-
Conventional double glazing	152	42
Double glazing incorporating Pilkington K Glass™	126	68

The examples above have been calculated assuming a typical semi-detached house located in the Midlands, similar to the one adopted by Building Research Establishment (BRE) in the PIT project on advanced glazing (CI 38/19/5).

The costs and savings indicated are annual space heating costs. On average, space heating accounts for about 60% of energy used in the home.

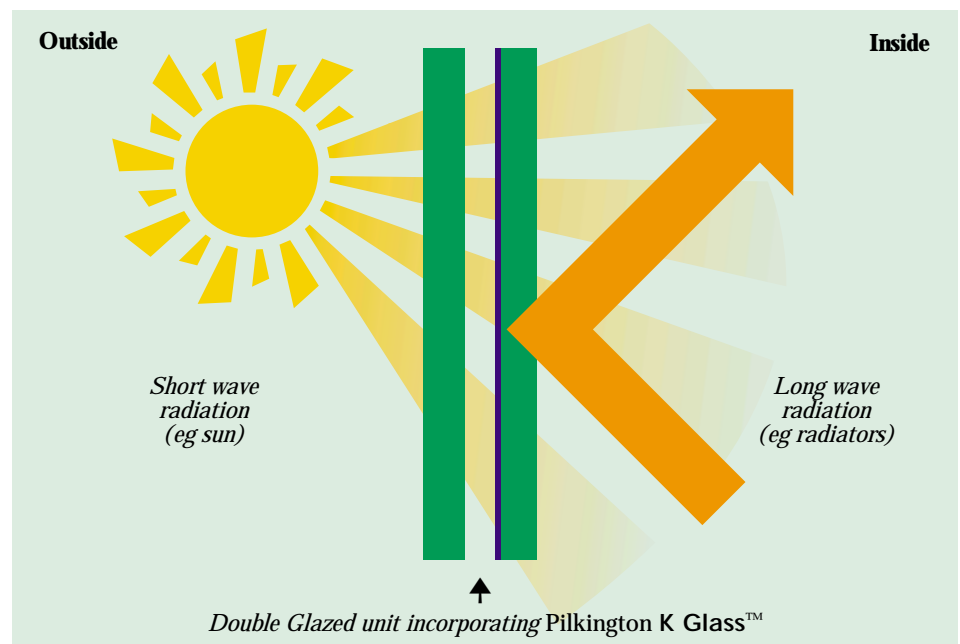
All figures are illustrative only and have been determined using National Home Energy Rating Builder Program version 3.12, the most widely used method in the UK.

Increased comfort.

The unique properties of Pilkington K Glass™ mean you can turn down your thermostat and still remain just as comfortable. This can result in savings over and above those shown in the table.

Windows incorporating Pilkington K Glass™ allow heat from the sun through, but reflect heat from fires and radiators back inside. Making it easier to keep houses warm.

How Pilkington K Glass™ works





Allowing you to make the most of your conservatory all year round.

Pilkington K Glass™ can also be toughened or laminated for safety and greater security.

Help the environment with our glass.

By reducing the amount of heating needed to keep your home warm,

Pilkington K Glass™ helps to save energy and vital natural resources.

In fact, if all the single glazed buildings in

the United Kingdom were double glazed with Pilkington K Glass™ it would save £600 million worth of energy per year.

That's enough energy to heat every house in six cities the size of Birmingham.

Add this to smaller heating bills, a warmer home and reduced condensation and

Pilkington K Glass™ is clearly the best glass for double glazing.



Experts say it's the best glass for double glazing.



Energy Saving Trust.
When investing in replacement windows, low emissivity glass, such as Pilkington K Glass™, is recognised by the Energy Saving Trust as a significantly effective measure for achieving savings on fuel bills

Energy Efficiency is an Energy Saving Trust Initiative

Reduced condensation.

Pilkington K Glass™ also significantly reduces unsightly internal condensation. Condensation forms when warm, moist air comes into contact with a cold surface, such as conventional glass.

The energy saving coating on our glass actually makes the surface warmer to the touch, so condensation is reduced.

Eliminates cold spots.

Ordinary glass offers poor insulation, so uncomfortable cold spots close to windows are a common problem.

Double glazing can alleviate this to an

extent, but only double glazing with Pilkington K Glass™ has the total solution. It provides superior insulation, making the inner pane of your window much warmer. This eliminates cold spots, and increases useful floor space

Perfect for conservatories.

Better insulation and no cold spots near windows makes Pilkington K Glass™ perfect for conservatories. In fact, it will typically keep an unheated conservatory comfortable for a greater part of the year than ordinary double glazing.

Expert information on Pilkington K Glass™.

How does Pilkington K Glass™ work?

You're probably wondering how a microscopic coating on a pane of glass can make such a big difference to its performance. This is how it works.

The glass in your windows absorbs heat then radiates it again on the colder, outside, surface. Pilkington K Glass™ has what is called a low emissivity coating on the surface that faces into the air gap of the double glazing unit.

Low emissivity means the coating is a poor radiator. The heat absorbed by the coated glass is inhibited from radiating across the air gap and then from the outer pane to the cold outside world. Instead the heat is reflected back into the room by the coating.

It works in a similar way to a sheet of reflecting foil placed behind a central heating radiator which, as you know, bounces the heat back into the room.

Heat losses through different materials can be compared by their "U values". The higher the U value, the greater the heat loss through the material.

The U value of a single pane window is 5.6. Double glazing with ordinary glass has a U value of 2.8. Double glazing with Pilkington K Glass™ has a U value of only 1.9, considerably better than conventional double glazing, and as good as triple glazing.

Pilkington K Glass™ should not be used as single glazing.

Effective U value

In the case of windows and glazing, because they admit the sun's energy, the U value concept can be taken a step further. Even in the winter the sun can shine and help to warm a room.

Over a typical heating period the amount of useful heat from the sun entering through windows can be subtracted from the normal U value (a measure of the heat leaving through the windows) to give an overall "effective U value". This is dependent upon the direction the window faces. In the case of south facing windows with Pilkington K Glass™ double glazing units, the normal U value of 1.9 W/m²K is reduced to an Effective U value of virtually zero. In other words, the amount of heat lost is balanced by the heat gained from the sun.

Effective U value can simply be regarded as "heat out minus useful heat in".

Appearance

Pilkington K Glass™ has high light transmission and appears virtually the same as clear float glass. However, in rare instances of strong oblique lighting, the coating may be seen as a transparent film. This is simply a transient visual effect which can be considered positive evidence of the coated surface being present.

Further evidence of the coating's presence is through the very minor effect it has on white light transmission. This effect is so small as to be generally unnoticeable. However, when a light coloured object or material is in close proximity to the glazing, dependent on local circumstances and conditions, a slight darkening can be noted.

Because Pilkington K Glass™ is so neutral in appearance, it is recommended that its presence in a double glazing unit is confirmed on installation.

This can be achieved by the use of a coating detector which unit manufacturers or installers should have available.

In certain extreme environmental conditions, low emissivity glasses might increase external condensation.



Energy Efficiency is an
Energy Saving Trust Initiative



Experts say it's the best glass
for double glazing.



YOUR LOCAL INSTALLER

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