



## Pilkington **K Glass**<sup>™</sup> Range

Pilkington **K Glass**<sup>™</sup>

Pilkington **K Glass**<sup>™</sup> OW

Pilkington **K Glass**<sup>™</sup> OW on Surface 4

Pilkington **K Glass**<sup>™</sup> S



Upstairs windows using energy-efficient glazing.

Downstairs windows using original single glazing.



## A warm welcome to Pilkington **K Glass**™

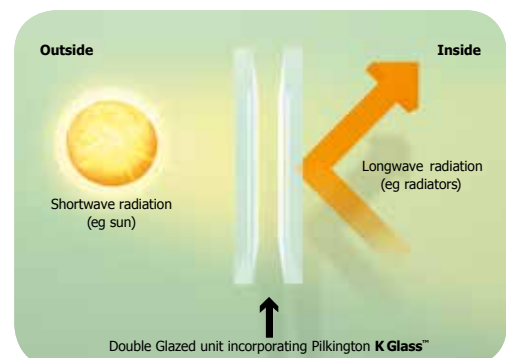
For over two decades the Pilkington brand has been the driving force behind the development of energy-efficient glazing. This expertise has been used to strengthen the Pilkington **K Glass**™ range, which now boasts more choice than ever. So you have even more ways to achieve the Window Energy Rating (WER) you want and to comply with Part L of the Building Regulations, now and in the future.

## Don't waste energy looking around – the ideal solution is right here

Each product from the Pilkington **K Glass**™ range usually forms the inner pane of an Insulating Glass Unit (IGU), also commonly referred to as double glazed unit, and has a special low-emissivity (low-e) coating which is a good reflector of long wave radiation (heat). This allows less heat to escape through windows, as it reflects heat from within the room back into the building. At the same time, low-e glass lets the sun's heat pass through the windows, thus also contributing to its energy efficiency. This free heat from the sun is known as passive solar gain or g-value. A higher g-value can be achieved when Pilkington **K Glass**™ is combined with a low-iron glass such as Pilkington **Optiwhite**™ as the outer pane of an IGU.

## Thermal efficiency made clear

The Window Energy Rating (WER) is the Government-backed method of assessing and ranking the energy efficiency of a complete window. Taking into account its U-value, g-value and air infiltration, the scheme allows easy comparison of the energy efficiency of competing windows on a scale of A-G with A being the best. The energy performance of an IGU or the window itself can be improved in a series of steps to gradually improve the WER band achieved; firstly argon filling improves the U-value, then a low-iron glass such as Pilkington **Optiwhite**™ as the outer pane improves g-value. The addition of a warm edge spacer bar improves the U-value of the whole window. Currently Building Regulations in England and Wales demand a minimum of band C but we expect this will tighten with changes to Part L in 2013 and then again in 2016.





## A closer look at the range

### Pilkington **K Glass**<sup>™</sup>

The original hard coated low-emissivity glass, Pilkington **K Glass**<sup>™</sup> is designed to reflect heat back into a building, greatly improving its thermal efficiency and maximising the use of free heat. Pilkington **K Glass**<sup>™</sup> remains the UK's best known and most recognisable brand name in both trade and consumer markets.

- Hard-coat
- Highly durable
- Easy to handle and process
- Cost effective
- When combined with Pilkington **Optiwhite**<sup>™</sup> can easily achieve a WER C in most frame types
- Readily available from stock
- Doesn't have the shelf life limitations of a soft-coat product
- No edge deletion required

### Pilkington **K Glass**<sup>™</sup> OW

For A-rated windows with unrivalled levels of clarity, Pilkington **K Glass**<sup>™</sup> OW is the clear choice. An advanced form of the original Pilkington **K Glass**<sup>™</sup>, it allows better light transmission, improves g-value and helps achieve a WER band A in the greatest range of window profiles when used within Pilkington **energiKare**<sup>™</sup> IGUs.

- Hard-coat
- When combined with other products from our range within a Pilkington **energiKare**<sup>™</sup> IGU, it's even easier to achieve a WER of A
- Improved clarity compared to standard low-e glazing options

- Readily available from stock
- Doesn't have the shelf limitations of a soft coat product
- No edge deletion required

### Pilkington **K Glass**<sup>™</sup> OW on Surface 4

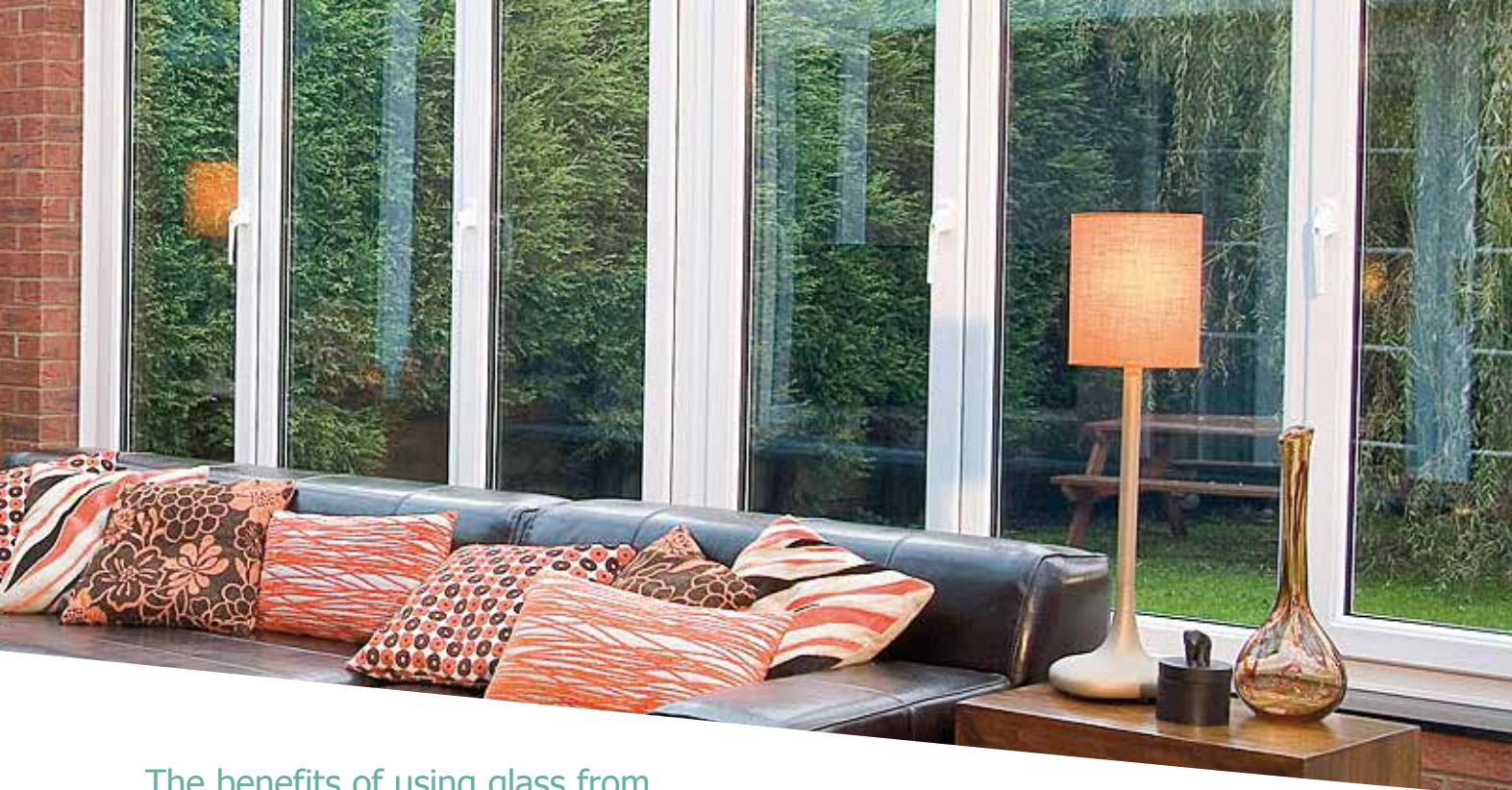
For the ultimate in thermal insulation Pilkington **K Glass**<sup>™</sup> OW can be used on Surface 4 (the exterior surface of the inner pane) of an IGU to provide the performance of a triple glazed unit with double glazing.

### Pilkington **K Glass**<sup>™</sup> S

The latest product in our low-e range is Pilkington **K Glass**<sup>™</sup> S, a high performance, low-e soft-coat option, for outstanding energy-efficient glazing. Offering excellent thermal insulation when incorporated within Pilkington **energiKare**<sup>™</sup> IGU, Pilkington **K Glass**<sup>™</sup> S has a highly neutral appearance with optimal g-value, thermal insulation and light transmission to provide the highest WER performance.

- Soft-coat
- The ultimate high performance low-e product
- A highly neutral appearance with optimal solar heat gain
- Helps windows exceed Part L regulations both now or in the future
- Single Stock product

Did you know? Pilkington **K Glass**<sup>™</sup> OW can be used as the inner pane (Surface 4) of an IGU to achieve a  $U_g$ -value as low as 0.9 when combined with Pilkington **Optitherm**<sup>™</sup> S1 Pro T (Surface 2).



## The benefits of using glass from the Pilkington **K Glass**<sup>™</sup> range are easy to see

- The Pilkington brand is trusted and well recognised by consumers
- When combining Pilkington **K Glass**<sup>™</sup> and Pilkington **K Glass**<sup>™</sup> OW in a Pilkington **energiKare**<sup>™</sup> unit you can achieve a WER band A in most framing systems
- When Pilkington **K Glass**<sup>™</sup> S is combined with Pilkington **Optiwhite**<sup>™</sup> in a Pilkington **energiKare**<sup>™</sup> IGU, A-rated windows are easily achievable
- Increased light transmission reduces the need for artificial lighting
- Pilkington **K Glass**<sup>™</sup> has been recognised by the Energy Saving Trust as a significant means of improving energy efficiency
- Pilkington **energiKare**<sup>™</sup> units which help windows to achieve WER B or above qualify for Energy Saving Recommended status
- Suitable for use in PVCu, timber and aluminium profiles in both new and replacement windows
- Enables householders to reduce energy usage and save money on heating bills
- Helps Governmental targets of reducing CO<sub>2</sub> emissions from homes
- Helps to reduce window drafts, making rooms more usable
- Enables glazed areas of a building to be extended without increasing heat loss
- Reduces unsightly internal condensation
- Keeps conservatories more comfortable than ordinary double glazing
- Single stocked product which is available in annealed form and can be toughened or laminated for safety and greater security
- All products manufactured in St Helens, England

Proud supporters of



**energy saving trust**<sup>®</sup>

### Note:

Pilkington **energiKare**<sup>™</sup> is the brand name given to double glazed units containing any product from the Pilkington **K Glass**<sup>™</sup> Range when combined with Pilkington **Optiwhite**<sup>™</sup> (as outer pane) that will achieve a WER of at least band C in a given window framing system.

Visit [pilkington.co.uk/thermal\\_insulation](http://pilkington.co.uk/thermal_insulation) for further information on our product range.

## Pilkington K Glass™ Range – Comparative Performance in Glazing

Outer Pane (4 mm)	Cavity (mm) Gas Fill	Inner Pane (4 mm)	Light Transmittance %	Light Reflectance (external) %	Centre Pane U <sub>g</sub> -value (W/m <sup>2</sup> K)	Total Solar Heat Transmittance (g value) %	Indicative WER Performance Band*		Pilkington energiKare™ unit
							Aluminium Spacer Bar	Warm Edge Spacer Bar	
Pilkington <b>Optiwhite™</b>	16 mm <b>Argon</b>	Pilkington <b>K Glass™</b>	76	18	1.5	78	C	A	Y
Pilkington <b>Optiwhite™</b>	16 mm <b>Argon</b>	Pilkington <b>K Glass™ OW</b>	78	18	1.5	79	C/B	A	Y
Pilkington <b>Optifloat™</b> Clear	16 mm <b>Argon</b>	Pilkington <b>K Glass™ S</b>	80	12	1.2	71	B/A	A	N
Pilkington <b>Optiwhite™</b>	16 mm <b>Argon</b>	Pilkington <b>K Glass™ S</b>	81	12	1.2	75	A	A	Y

Above determined in accordance with EN410 and EN673. Assuming 90% argon gas fill.

\*Varies with frame performance.

## Pilkington K Glass™ OW for use on Surface 4 – Optimised for U<sub>g</sub> value (WER not applicable)

Outer Pane (4 mm)	Cavity (mm) Gas Fill	Inner Pane (4 mm)	Light Transmittance %	Light Reflectance (external) %	Centre Pane U <sub>g</sub> -value (W/m <sup>2</sup> K)	Total Solar Heat Transmittance (g value) %
Pilkington <b>Optitherm™</b> S1 Pro T (Toughened)*	16 mm <b>Argon</b>	Pilkington <b>K Glass™ OW</b>	72	21	0.9	50
Pilkington <b>Optitherm™</b> S3 Pro T (Toughened)*	16 mm <b>Argon</b>	Pilkington <b>K Glass™ OW</b>	73	16	1.0	56
Pilkington <b>K Glass™ S</b>	16 mm <b>Argon</b>	Pilkington <b>K Glass™ OW</b>	73	15	1.1	61
Pilkington <b>K Glass™ OW</b>	16 mm <b>Argon</b>	Pilkington <b>K Glass™ OW</b>	69	19	1.3	64

Above determined in accordance with EN410 and EN673. Assuming 90% argon gas fill.

\*Pilkington **Optitherm™** S1 Pro T and Pilkington **Optitherm™** S3 Pro T are both soft coat low-e glass and part of Pilkington **Optitherm™** Range.

## Pilkington K Glass™ Range – a selection of available sizes

Thickness	Maximum Sizes	Thickness	Maximum Sizes
Pilkington <b>K Glass™</b>			
4 mm	3210 x 2250 mm	6 mm	3210 x 2250 mm
4 mm	3210 x 2550 mm	6 mm	3210 x 2550 mm
4 mm	6000 x 3210 mm	6 mm	6000 x 3210 mm
4 mm	3210 x 2400 mm	–	–
4 mm	2400 x 1605 mm	–	–
4 mm	2400 x 1070 mm	–	–
Pilkington <b>K Glass™ OW</b>			
4 mm	3210 x 2250 mm	6 mm	3210 x 2250 mm
4 mm	3210 x 2550 mm	6 mm	3210 x 2550 mm
4 mm	6000 x 3210 mm	6 mm	6000 x 3210 mm
4 mm	3210 x 2400 mm	–	–
4 mm	2400 x 1605 mm	–	–
4 mm	2400 x 1070 mm	–	–
Pilkington <b>K Glass™ S</b>			
4 mm	3210 x 2250 mm	6 mm	3210 x 2250 mm
4 mm	3210 x 2550 mm	6 mm	3210 x 2550 mm
4 mm	6000 x 3210 mm	6.4 mm and 6.8 mm laminated	6000 x 3210 mm

**Pilkington K Glass™***energy-efficient glass*

This publication provides only a general description of the products. Further, more detailed, information may be obtained from your local supplier of Pilkington products. It is the responsibility of the user to ensure that the use of these products is appropriate for any particular application and that such use complies with all relevant legislation, standards, codes of practice and other requirements. To the fullest extent permitted by applicable laws, Nippon Sheet Glass Co. Ltd. and its subsidiary companies disclaim all liability for any error in or omission from this publication and for all consequences of relying on it.



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The CE marking label for each product, including declared values, can be found at [www.pilkington.com/CE](http://www.pilkington.com/CE)



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