



## Pilkington Activ™

The world's first self-cleaning glass  
with advanced dual-action for superior results.



**PILKINGTON**  
NSG Group Flat Glass Business

## A revolution in glass

Self-cleaning glass has been described as an impossible dream. Yet, following an intensive research and development programme by Pilkington – inventors of the universally used float glass process, and the world's leading glass manufacturer – Pilkington **Activ™** does just that.

Its unique dual-action uses the forces of nature to help keep the glass clear of organic dirt, giving you not only the practical benefit of less cleaning, but also clearer, better-looking windows.

This brochure has been designed to answer all the questions you may have about Pilkington **Activ™** and how it works.

## The benefits of Pilkington **Activ™**

- The world's first self-cleaning glass.
- Saves you time and money, and is safer than cleaning your own windows.
- Unique coating breaks down and loosens organic soiling.
- Even works on cloudy days and during the night.
- Can be used in almost any external domestic application – ideal for conservatories and windows.
- Will not be worn away or rubbed off under normal conditions – lasts the lifetime of the glazing itself.
- Easily cleaned during dry spells by hosing down or wiping with a soft cloth and warm soapy water.
- Also available – Pilkington **Activ™** Blue and Pilkington **Activ™** Neutral, combining self-cleaning properties with solar control performance for conservatory roofs.
- Pilkington **Activ™** helps reduce the visual appearance of external condensation.
- Can be used in conjunction with other Pilkington glass products for example Pilkington **K Glass™** to provide increased energy efficiency and save on heating bills.
- Created and manufactured by the world's leading glass producer – Pilkington.

For more information please visit [www.pilkington.com/selfcleaningglass](http://www.pilkington.com/selfcleaningglass)



## How Pilkington **Activ™** works

### What do you mean by ‘dual-action’?

The secret of Pilkington **Activ™** lies in its special coating, which works in two stages:

#### *Breaking down organic dirt*

Firstly, the coating reacts with ultra-violet (UV) rays from natural daylight to break down organic dirt (see figures 1 & 2).

Organic dirt generally comes from plants and animals e.g. bird droppings, pollen or tree sap, while inorganic dirt comes from other, non-living sources e.g. cement or plaster.

#### *Washing dirt away*

The second part of the process happens when water hits the glass. Rainwater runs down the glass to wash the loosened dirt (both organic and inorganic) away. Loose inorganic dirt will only be removed by water (see figure 3).

Compared with conventional glass, the water dries very quickly, reducing unsightly streaks or marks.

### How long does the self-cleaning operation take?

Pilkington **Activ™** works continuously, with dirt being washed away whenever it rains.

### Does Pilkington **Activ™** work straight away?

After fitting, the coating on the glass takes about five days to activate itself fully.

### Will this process work even when the glass is very dirty?

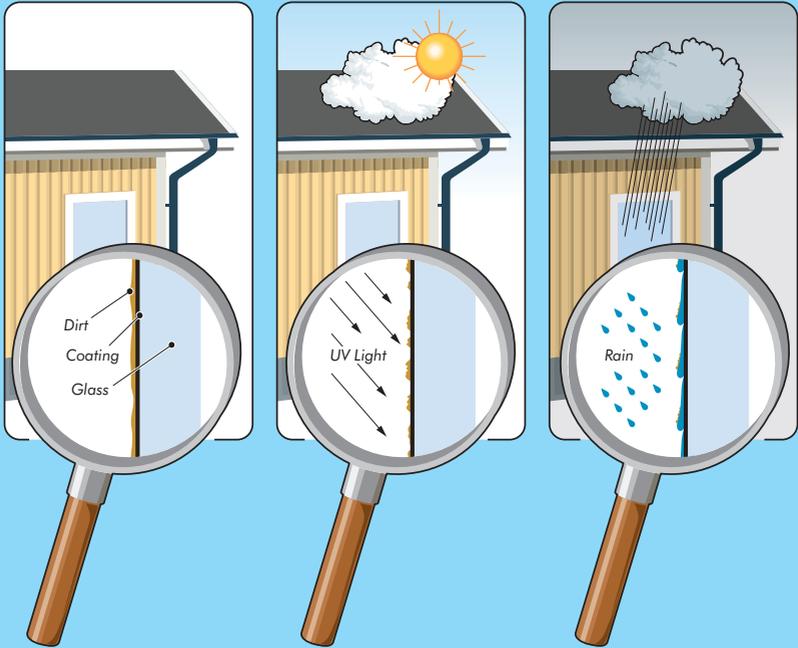
The coating will eventually break down quite heavy deposits of organic dirt. However, if the surface is so dirty that UV light cannot reach the glass, the self-cleaning action will become steadily less effective. In such cases, clean the glass with warm soapy water and a soft cloth, and in a few days the glass will have re-activated.

### What happens if it does not rain for some time?

Normally, rainfall will be enough to keep your windows clean. In dry spells though, your windows can be washed with a soft cloth and warm soapy water or hosed down gently.

### What about cloudy days and at night?

Pilkington **Activ™** needs only a small amount of UV radiation to keep the coating activated – so it works even on overcast days.



**Figure 1:**  
**Coating is activated by UV light**  
After installation the special coating needs 5 to 7 days' of exposure to daylight to activate fully.

**Figure 2:**  
**Organic dirt is broken down**  
The coating breaks down organic dirt and by doing so, reduces the adherence of inorganic dirt.

**Figure 3:**  
**Rain washes dirt away**  
Water droplets spread out to form a 'sheet', dirt particles on the surface are picked up by water and washed off glass - a remarkable difference you can actually see.

## Frequently asked questions

### **Exactly what is self-cleaning glass?**

Pilkington **Activ**<sup>™</sup> is normal glass with a special coating on the outside that has a unique dual-action. Once exposed to daylight, the coating firstly breaks down any organic dirt deposits and secondly, causes rainwater to ‘sheet’ down the glass to wash the loosened dirt away.

### **What effect does the coating have on the glass?**

Very little, other than keeping it cleaner for longer! It has no effect on its strength, and only reduces the amount of light and energy that passes through by about 5%. From certain angles it has a slightly greater reflective quality than normal glass, with an attractive faint blue tint, giving it a clearer, brighter appearance.

### **Can it be scratched or rubbed off?**

The coating is integral to the glass – it will not flake off or discolour, so it can only be affected if the surface itself is damaged; for example, by pointed objects, abrasive cleaners or steel wool.

### **How long will the coating last? Can it be replaced?**

The coating has been developed to last as long as the insulating glass unit itself. The coating is permanent and will not need re-applying.

### **Is it environmentally friendly?**

Yes. The coating contains harmless chemical substances already found in the home, in items such as bath oils and toothpaste. In fact, because of the reduction in the use of detergents and fresh water needed to clean the glass, The Building Research Establishment has indicated that Pilkington **Activ**<sup>™</sup> is actually more beneficial to the environment than normal glass. What’s more, it also reduces maintenance costs.

### **How do I know I have Pilkington **Activ**<sup>™</sup> in my windows?**

Pilkington **Activ**<sup>™</sup> can be identified using a unique hand-held detector on the coated surface, which your installer should have available. Your installer should also provide you with a Pilkington **Activ**<sup>™</sup> installation certificate.



1. The window is exposed to daylight



4. Rainwater hits window and sheets down glass



2. Daylight triggers the Pilkington **Activ™** coating



5. Dirt is washed away by rain



3. Reaction loosens organic dirt



6. Window is left clean

### **Where can Pilkington Activ™ be used?**

Almost any exterior application, such as windows, conservatories, façades and glass roofs, on any orientation for example North, South, East or West facing. It can be installed vertically or at sloping angles of at least 10 degrees, but ideally 30 degrees or more to ensure good water flow. It is especially useful for inaccessible windows where organic dirt normally collects, such as skylights. Avoid glazing with Pilkington Activ™ under an overhang or in a situation where daylight and/or rain cannot reach it. It has been designed for exterior use only. The installation of Pilkington Activ™ reduces the need for awkward access equipment or taking risks to clean the glass.

### **Can it be combined with other types of glass?**

Pilkington Activ™ can be combined with other Pilkington glass products in insulating glass units to provide benefits such as thermal insulation, noise reduction, solar control and fire protection. Additionally, Pilkington Activ™ is available in toughened or laminated form for increased safety and security. Also, Pilkington Activ™ Blue and Pilkington Activ™ Neutral offer self-cleaning properties with solar control performance.

### **Will my windows ever need cleaning?**

We do not say that your windows will never need cleaning – that depends on the type and amount of dirt and the volume of rain the glass in your window receives. Pilkington Activ™ reduces the amount of maintenance required. If the glass is located in a position where the amount of material being deposited on the surface overwhelms the self-cleaning properties of the glass, or the glass is not flushed clean by the rain, then manual cleaning with a soft cloth and warm soapy water or hosing to replicate the action of rain may be required at more frequent intervals.

### **What if dust collects on the surface during dry weather?**

Pilkington Activ™ will remove organic and loosened deposits, but it will not break down inorganic dirt. To remove loose inorganic dirt before the next rainfall, simply spray or hose the glass with water.



## Cleaning and maintenance instructions for Pilkington **Activ**<sup>™</sup> range

An insulating glass unit incorporating Pilkington **Activ**<sup>™</sup> self-cleaning glass must be glazed with the Pilkington **Activ**<sup>™</sup> coating to the outer surface.

Pilkington **Activ**<sup>™</sup> has a durable coating, and through utilisation of natural UV light, requires less frequent cleaning and provides clearer vision after rainfall.

To achieve and maintain these properties, these guidelines must be followed:

1. Regular cleaning of this product should not normally be necessary. However, extended dry periods can cause a build-up of contaminants on the coated surface. Under such circumstances, hose down the window and let the glass dry naturally. Spraying should be conducted during the coolest part of the day and not in direct sunlight. It is best to spray from the top to the bottom in a zig zag pattern. (Note: pressure washers should not be used).
2. Periodically, the surface may become contaminated with stubborn marks that cannot easily be removed by hosing down the window. Where contamination occurs, the window should be hosed to remove any accumulation of dirt, cleaned with warm soapy water and a soft cloth, followed by a final water rinse.\* If necessary use a non-abrasive liquid glass cleaner, after the final water rinse. Do not trap dirt between the cloth and the Pilkington **Activ**<sup>™</sup> surface. Rubber squeegees should not be used as they may trap grit and damage the coated surface and the glass.
3. After cleaning with a soft cloth a period of reactivation may be required. This is typically 5-7 days.
4. Finger marks on the coated surface will, under normal circumstances, disappear. Where such marks persist, the glass should be cleaned in accordance with point 2 above.
5. If silver-coloured areas or grease appear on the surface of the glass – this means that the coating is working and the oil-like stains will be washed away next time it rains.
6. Do not use abrasive cleaners, cream cleaners and functional (e.g. anti-mist) type products on Pilkington **Activ**<sup>™</sup>, as they will damage the coated surface.
7. In areas of hard water\* supply, hosing down could result in white marks or milky appearance to the coated surface, caused by minerals in the water. Where this occurs, it is recommended that a solvent-free detergent be added via a suitable applicator to minimise the effect. The white marks can be minimised by avoiding hosing the glass at the hottest time of the day.

8. Do not splash paint or cement products on to the glass. If ink or paint gets onto the glass, remove it using a soft cloth and cleaner (methylated spirits). If cement gets onto the glass, remove it using a limescale remover. Never use scouring agents, steel wool, razor blades or other hard objects which will scratch the glass.\*\*
9. Where Pilkington **Activ**<sup>™</sup> Insulating Glass Units are likely to be stained by white carbonate run-off from lead flashing (i.e. conservatory roofs), it is recommended that all lead adjacent to the glass surface is treated with patination oil or Leadshield<sup>™</sup> prior to installation.\*\*
10. Care should be taken to ensure that alkali run-off from concrete etc. does not contaminate the glass surface.\*\*
11. Under no circumstances should any metal objects or harsh chemical cleaners be used to clean or otherwise come into contact with the coated surface. Steel scrapers, razor blades, steel wool, squeegees, rings etc. will cause scratching and may lead to permanent damage of the coating.
12. All maintenance and repairs above and beyond basic cleaning needs should be carried out by a recommended installer. Note: silicone should never be used in conjunction with Pilkington **Activ**<sup>™</sup>. Advice on suitable sealants is available from Pilkington. [www.pilkington.com/uk/technicalupdate](http://www.pilkington.com/uk/technicalupdate)

\*If the water quality is very hard (greater than 180ppm combined content of calcium carbonate CaCO<sub>3</sub> and magnesium carbonate MgCO<sub>3</sub>), rinsing water should be softened with a domestic water softener or by adding a couple of drops of detergent (such as dishwashing detergent) to a litre of water.

\*\*Please seek out specialist advice for removal of contaminating deposits.

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Leadshield<sup>™</sup> is a trademark of **British Lead Mills**.

For further technical information, visit [www.pilkington.com/selfcleaningglass](http://www.pilkington.com/selfcleaningglass)



This publication gives a general description of the product and materials. It is the responsibility of the users to ensure that their use is appropriate for any particular application and that such application complies with all relevant local and national legislation, standards, codes of practice and other requirements.

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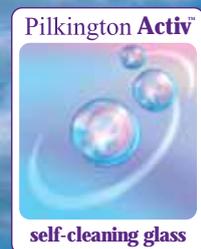


CE marking confirms that a product complies with its relevant harmonised European Norm. The CE marking label for each product, including declared values, can be found at [www.pilkington.com/CE](http://www.pilkington.com/CE)



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**Pilkington Activ™**  
The world's first self-cleaning glass.

*With advanced **dual action** for superior results*



## The benefits of Pilkington **Activ**<sup>™</sup>



*The Vistas, Cheshire.  
Countryside Properties.*

- The world's first self-cleaning glass.
- Unique coating breaks down and loosens even heavy soiling.
- Continues working on cloudy days and during the night.
- Reduces cleaning and maintenance costs, and gives windows a better appearance for longer.
- The ideal choice for situations where cleaning will be difficult or costly (e.g. high rise buildings, conservatories and roof lights), or where good visibility is important (e.g. sports stadiums).
- Unique coating cannot be worn away or rubbed off – lasts the lifetime of the glazing itself in normal use.
- Easily cleaned during dry spells by hosing down or wiping with a soft cloth and warm soapy water.
- Created and manufactured by the world's leading glass producer – Pilkington.
- Can be combined with other Pilkington glass products to offer a wide range of additional benefits.

## All you need to know about self-cleaning glass

Pilkington **Activ**<sup>™</sup> is effectively the same as conventional glass but with a specially developed coating on the outside that has a unique dual action. Once exposed to daylight, the coating chemically reacts in two ways. Firstly, it breaks down any 'organic' dirt deposits – such as bird droppings and tree sap – and secondly, rainwater 'sheets' down the glass to wash the loosened dirt away.

### How can I be certain Pilkington **Activ**<sup>™</sup> will work?

Self-cleaning glass has long been seen as an impossible dream. However, as you'd expect with any new product from Pilkington, it has been extensively developed and tested over a number of years to make absolutely sure that any claim we make is true. And our reputation for reliability and quality makes sure it will go on working, too.

### How does this 'dual action' work?

The secret of Pilkington **Activ**<sup>™</sup> lies in the special coating, which works in two stages:

#### *Breaking down organic dirt*

Using a 'photocatalytic' process, the coating reacts with ultra-violet rays present in natural daylight to break down and decompose organic dirt.

#### *Washing dirt away*

The second part of the process happens when rainwater hits the glass. Pilkington **Activ**<sup>™</sup> is 'hydrophilic' which means that instead of forming droplets, the water spreads evenly over the surface and as it runs off takes the dirt with it. Compared with conventional glass, the water also dries off very quickly reducing unsightly 'drying spots'.

*Museum of the Earth,  
New York.*



### **Does Pilkington Activ™ work straight away?**

Pilkington Activ™ takes about five to seven days to activate itself following installation, after which it works continually with dirt being washed away whenever it rains. The coating only needs a small amount of UV radiation to work, so it continues to break down and remove dirt even on overcast days.

### **Will Pilkington Activ™ windows ever need cleaning?**

Cleaning will be needed much less frequently. In certain circumstances, such as during prolonged dry spells, the windows can be washed off either by hosing to replicate rain, or with a soft cloth and warm soapy water.

Cleaning may also be necessary to remove inorganic deposits (i.e. man-made deposits such as paint or ink) from the glass.

### **What effect does the coating have on the glass?**

Its appearance is similar to any other glass. The special coating has no effect on its strength, it only reduces the amount of light and energy that passes through by a very small amount and gives the glass an attractive slight blue tint.

### **Can it be scratched or rubbed off?**

The coating on Pilkington Activ™ is an integral part of the glass – so it can only be affected if the surface itself is damaged; for example, by pointed objects, abrasive cleaners or steel wool. Our tests have also shown it won't flake off or discolour.

### **How long will it last?**

Tests on Pilkington Activ™ have shown that the coating will last as long as the glass itself.

### **Is it environmentally friendly?**

Yes. The coating contains harmless chemical substances already found in the home, in such things as bath oils and toothpaste. In fact, with only small amounts of cleaning agents needed, Pilkington Activ™ is kinder to the environment than ordinary glass.

## **Designing with Pilkington Activ™**

Available in 3, 4, 6, 8 and 10mm thicknesses, Pilkington Activ™ is suitable for almost every commercial application, proving particularly useful in situations where cleaning would be difficult or costly. It can be single glazed or incorporated into an insulating glass unit, with the self-cleaning coating positioned on the outside of the building, facing the weather.

If Pilkington Activ™ is to be installed where rainwater will not reach it – for example, beneath an overhang – dirt deposits are less likely to be washed away. In such circumstances, these windows may need more regular hosing. The minimum recommended angle is 10 degrees from horizontal, so that rainwater can flow over the glass properly.

Pilkington Activ™ Blue is now available, combining self-cleaning properties with solar control performance.

### **Considerations**

#### *Glazing and framing*

- It is essential not to use silicone lubricants in both single glazed and insulated glass unit applications.
- EPDM, TPE, foam, vinyl and some rubber-based gaskets are all generally compatible with Pilkington Activ™ when used without a lubricant. Refer to [www.pilkington.com](http://www.pilkington.com) for full details.
- If a lubricant is necessary, an alternative to silicone oil – such as glycerine oil – should be used.



*Domestic conservatory,  
Whitby.*

Pilkington is continually working with manufacturers to test the compatibility of Pilkington **Activ™** with various glazing systems. When considering its use in a particular project, it is therefore advisable to check the details on [www.pilkington.com](http://www.pilkington.com) or talk to our technical experts at the earliest opportunity for the latest information and advice.

#### *Handling and maintenance*

The handling, transportation and installation of Pilkington **Activ™** require the same degree of care to be taken as any coated glass product.

- After building work is completed Pilkington **Activ™** should be cleaned as soon as possible by rinsing with water to remove all traces of dust, abrasives, etc. which may have accumulated during construction.
- In areas with very 'hard water', cleaning Pilkington **Activ™** by hosing may result in white marks or milky appearance to the coated surface (due to the mineral residues in the water). Here, it is recommended that a solvent-free detergent be added via a suitable applicator to minimise the effect.
- Spraying should be conducted during the coolest part of the day and not in direct sunlight. It is best to spray from the top to the bottom in a zig zag pattern.  
(Note: pressure washers should not be used).

- The white marks can be minimised by avoiding hosing the glass at the hottest time of the day.
- If the water quality is very hard (i.e. greater than 180ppm combined content of calcium carbonate, CaCO<sub>3</sub> and magnesium carbonate, MgCO<sub>3</sub>) then rinsing water should be softened through a domestic water softener or through the addition of a couple of drops of detergent (dishwashing detergent suffices) to a litre of water.
- Under no circumstances should any metal objects or harsh chemical cleaners be used to clean or otherwise come into contact with the coated surface, as they may cause scratching and lead to permanent damage of the coating.

For detailed information on any aspect of handling and processing Pilkington **Activ™**, refer to our range of technical guidelines, visit [www.pilkington.com](http://www.pilkington.com) or contact our Technical Advisory Helpline on **01744 692000**.



*Britomart Transport Centre, Auckland.*



## Combining with other Pilkington products for added versatility

Although its special coating is applied during manufacture, Pilkington **Activ™** can be toughened – making it five times stronger than ordinary glass – laminated with other types of glass, dual

coated with a second coating on the reverse side or installed into insulating glass units (IGU) to provide a wide range of properties. The table below shows these in more detail.

<p>Energy management</p>	<p>For thermal insulation, Pilkington <b>Activ™</b> can be incorporated into IGUs, such as Pilkington <b>Insulight™</b>, with Pilkington <b>K Glass™</b> or Pilkington <b>Optitherm™</b> SN as the inner pane.</p> <p>If it is necessary to have another glass as the inner pane of the IGU then Pilkington <b>Activ Optitherm™</b> SN is also available, a dual coated product with Pilkington <b>Optitherm™</b> SN on the reverse side to Pilkington <b>Activ™</b>.</p> <p>For solar control, Pilkington <b>Activ Suncool™</b> HP 50/30, HP 53/40, HP 70/40 or HP 30/17 can be incorporated into an IGU. These are again dual coated products, with Pilkington <b>Suncool™</b> on the reverse side to Pilkington <b>Activ™</b>.</p> <p>Pilkington <b>Activ™</b> Blue combines dual-action, self-cleaning properties with solar control performance. For optimum self-cleaning and thermal performance, combine Pilkington <b>Activ™</b> Blue with Pilkington <b>K Glass™</b> or Pilkington <b>Optitherm™</b> SN in an IGU.</p> <p>Solar control products are also available in laminated form, either using tinted PVB interlayers or tinted glass laminated to Pilkington <b>Activ™</b>.</p>
<p>Safety and security</p>	<p>In toughened form Pilkington <b>Activ™</b> is up to five times stronger than ordinary glass. It achieves Class A impact safety performance to BS 12600 (EN 12600 Class 1), and if it does break, it does so into small particles reducing the risk of personal injury.</p> <p>Pilkington <b>Activ™</b> can also be laminated, i.e. combined with another glass product with PVB interlayers to produce a range of properties. The majority of laminated products (those of 6.4mm thickness and greater) provide at least BS 6206 Class B (EN 12600 Class 2) performance against risk of accidental injury.</p>
<p>Noise control</p>	<p>Pilkington <b>Activ™</b> can be included in an IGU with an acoustic laminated glass, such as Pilkington <b>Optilam™</b> Phon, for added noise control.</p>
<p>Decoration</p>	<p>Pilkington <b>Activ Stippolyte™</b> laminated glass can be produced combining Pilkington <b>Activ™</b> and Pilkington <b>Stippolyte™</b> – one of the Pilkington Texture Glass range. This could be incorporated with Pilkington <b>K Glass™</b> in an IGU for use in areas which require obscuration and a low emissivity glass in order to meet Part L.</p> <p>For a coloured effect, Pilkington <b>Activ™</b> can also be combined in a laminated glass using either tinted interlayers or tinted glass.</p>
<p>Fire protection</p>	<p>For Pilkington <b>Activ™</b> applications that require the use of fire-resistant glass, please contact our technical experts for advice.</p>



*Museum of the Earth, New York.*

## Examples of Pilkington **Activ**<sup>™</sup> in use

Pilkington **Activ**<sup>™</sup> is the perfect choice for situations where cleaning is difficult or costly, such as high-rise buildings, glass roof structures or conservatories and atria, or in housing for use by elderly residents. It is also ideal where good visibility is important, for example, in sports stadiums, commentary boxes, airports and external walkways.

Several examples of how Pilkington **Activ**<sup>™</sup> has been incorporated into buildings are included here.

A design feature of this private home near Chester, the atrium style roof to the central family room allows maximum light inside and offers stunning views from the galleried landing. By specifying Pilkington **Activ**<sup>™</sup>, the architect ensured that the glass always looks at its best, especially as cleaning access is so restricted.

*The Vistas, Wychwood Park. Countryside Properties 01270 821 0830.*



When the Flevoland Golf Club at Lelystad in the Netherlands built its new clubhouse, the glass façade was designed to give panoramic views over the new course, with Pilkington **Activ**™ the obvious choice. The owners have been extremely pleased with how good the glass looked straight from fitting, with fantastic clarity – even immediately after a rain shower.



*Bourgogne, France.*

#### **Appearance**

Pilkington **Activ**™ appears just like any other glass and the coating only reduces the amount of light and energy that passes through by a small amount. From certain angles it also has a slight blue tint. It is important to bear this in mind when Pilkington **Activ**™ is used alongside other types of glass.

#### **Transport and Storage**

During transportation and storage, the coated surface can be covered with plastic wrap for additional protection. Care should be taken when choosing the protective film, especially where the film may be adhered to the glass for long periods of time. Care should also be taken that the edges of the glass are not damaged during transport, storage and insulation. Damaged glass should not be glazed. Glass should be stored in dry conditions and out of sunlight, stacked upright and fully supported in a manner which prevents the glass from sagging. It should be stood on edge on strips of wood, felt or other relatively soft material.

#### **Decorative Effects**

For advice on the compatibility of decorative leads, colour overlays and Georgian Bars, please refer to the Technical Update on our website or contact our Technical Advisory Helpline on 01744 692000.

#### **Recycling**

Pilkington **Activ**™ can be recycled as float glass. Nevertheless, National regulations should be followed for the disposal of glass.

#### **Thermal Safety**

The possibility of excessive thermal stress being developed in the glass owing to solar radiation should be considered at all stages of design and construction. It is the responsibility of the customer or specifier to ensure that annealed glass is thermally safe for each application.

*The information contained in this document provides general guidance as to best practice with regard to the handling, processing and glazing of Pilkington **Activ**™.*

*It does not, however, constitute any representation or warranty with respect to the product, its performance or its suitability for any application.*

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*Contractor: Entropal B.V., Geldermalsen.*

One of the more unusual domestic applications for Pilkington **Activ**™ is this swimming pool cover in Bourgogne, France. Every pane had to meet safety regulations, and the owners have been delighted with the effectiveness of the self-cleaning process and the transparency of the glass.

This publication, whilst giving a general description of the product and materials, is issued as a guide only. Circumstances applicable to products and materials may vary and Pilkington gives no warranties or representations as to the accuracy or completeness of the publication or as to compliance with it by the products and materials except to the extent expressly confirmed by Pilkington in any contract for their sale. It is the responsibility of the user of this documentation to ensure that the use of the product and materials is appropriate for any particular application and that such application complies with all relevant local and national legislation, standards, codes of practice and other requirements.



CE marking confirms that a product complies with its relevant harmonised European Norm.  
The CE marking label for each product, including declared values, can be found at [www.pilkington.com/CE](http://www.pilkington.com/CE).



PILKINGTON

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[www.pilkington.com/selfcleaningglass](http://www.pilkington.com/selfcleaningglass)



# Pilkington **Activ**<sup>™</sup>

## Technical Information Datasheet

### Performance Data Pilkington **Insulight**<sup>™</sup>

Outer pane	Inner pane	Light		Solar Radiant Heat				Shading Coefficient			U value W/m <sup>2</sup> K		Sound Insulation
		Transmittance	Reflectance	Direct Transmittance	Reflectance	Absorptance	Total Transmittance or g value	Short Wavelength	Long Wavelength	Total	Air	Argon	
		Based on 16mm air filled cavity											R <sub>w</sub> (C; Ctr)
4mm <b>Activ</b> <sup>™</sup>	4mm <b>K Glass</b> <sup>™</sup>	0.70	0.23	0.58	0.21	0.21	0.69	0.67	0.13	0.80	1.7	1.5	29 (-1; -4)
6mm <b>Activ</b> <sup>™</sup>	6mm <b>K Glass</b> <sup>™</sup>	0.69	0.22	0.53	0.20	0.27	0.77	0.62	0.15	0.77	1.7	1.5	31 (-1; -4)
8mm <b>Activ</b> <sup>™</sup>	6mm <b>K Glass</b> <sup>™</sup>	0.68	0.22	0.51	0.19	0.30	0.73	0.59	0.14	0.73	1.7	1.5	35 (-2; -6)
10mm <b>Activ</b> <sup>™</sup>	6mm <b>K Glass</b> <sup>™</sup>	0.67	0.22	0.49	0.18	0.33	0.61	0.57	0.14	0.71	1.7	1.5	35 (-1; -3)
4mm <b>Activ</b> <sup>™</sup> Blue	4mm <b>K Glass</b> <sup>™</sup>	0.49	0.19	0.33	0.16	0.51	0.41	0.38	0.10	0.48	1.7	1.5	29 (-1; -4)
6mm <b>Activ</b> <sup>™</sup> Blue	6mm <b>K Glass</b> <sup>™</sup>	0.40	0.17	0.24	0.14	0.62	0.32	0.28	0.09	0.37	1.7	1.5	31 (-1; -4)
8.5mm <b>Activ Stippolyte</b> <sup>™*</sup>	4mm <b>K Glass</b> <sup>™</sup>	0.66	0.21	0.47	0.15	0.38	0.56	0.55	0.11	0.66	1.7	1.5	35 dB R <sub>w</sub> <sup>**</sup>
4mm <b>Activ</b> <sup>™</sup>	4mm <b>Optitherm</b> <sup>™</sup> SN	0.74	0.17	0.50	0.29	0.21	0.60	0.58	0.12	0.70	1.4	1.2	29 (-1; -4)
6mm <b>Activ</b> <sup>™</sup>	6mm <b>Optitherm</b> <sup>™</sup> SN	0.72	0.17	0.47	0.27	0.26	0.58	0.55	0.12	0.67	1.4	1.2	31 (-1; -4)
8mm <b>Activ</b> <sup>™</sup>	6mm <b>Optitherm</b> <sup>™</sup> SN	0.71	0.17	0.45	0.25	0.30	0.56	0.52	0.13	0.65	1.4	1.2	35 (-2; -6)
10mm <b>Activ</b> <sup>™</sup>	6mm <b>Optitherm</b> <sup>™</sup> SN	0.71	0.17	0.44	0.23	0.33	0.54	0.51	0.12	0.63	1.4	1.2	35 (-1; -3)
4mm <b>Activ</b> <sup>™</sup> Blue	4mm <b>Optitherm</b> <sup>™</sup> SN	0.51	0.17	0.30	0.17	0.53	0.38	0.35	0.09	0.44	1.4	1.2	29 (-1; -4)
6mm <b>Activ</b> <sup>™</sup> Blue	6mm <b>Optitherm</b> <sup>™</sup> SN	0.42	0.15	0.23	0.14	0.63	0.30	0.27	0.08	0.35	1.4	1.2	31 (-1; -4)
6mm <b>Activ Suncool</b> <sup>™</sup> HP 53/40	6mm <b>Optifloat</b> <sup>™</sup> Clear	0.49	0.14	0.33	0.21	0.46	0.39	0.38	0.07	0.45	1.5	1.3	31 (-1; -4)
6mm <b>Activ Suncool</b> <sup>™</sup> HP 50/30	6mm <b>Optifloat</b> <sup>™</sup> Clear	0.47	0.42	0.26	0.46	0.28	0.30	0.31	0.04	0.35	1.3	1.1	31 (-1; -4)
6mm <b>Activ Suncool</b> <sup>™</sup> HP 30/17	6mm <b>Optifloat</b> <sup>™</sup> Clear	0.28	0.30	0.15	0.40	0.45	0.18	0.17	0.04	0.21	1.3	1.1	31 (-1; -4)
6mm <b>Activ Suncool</b> <sup>™</sup> HP 70/40	6mm <b>Optifloat</b> <sup>™</sup> Clear	0.66	0.15	0.36	0.32	0.32	0.40	0.41	0.05	0.46	1.4	1.1	31 (-1; -4)
6.4mm <b>Activ Optilam</b> <sup>™</sup> Brown*	4mm <b>K Glass</b> <sup>™</sup>	0.41	0.15	0.34	0.14	0.51	0.44	0.40	0.11	0.51	1.7	1.5	35 dB R <sub>w</sub> <sup>**</sup>
4mm <b>Activ Optitherm</b> <sup>™</sup> SN	4mm <b>Optifloat</b> <sup>™</sup> Texture*	0.72	0.18	0.47	0.28	0.25	0.54	0.55	0.08	0.63	1.4	1.2	29 (-1; -4)
6mm <b>Activ Optitherm</b> <sup>™</sup> SN	6mm <b>Optifloat</b> <sup>™</sup> Texture*	0.69	0.14	0.43	0.30	0.27	0.51	0.50	0.09	0.59	1.4	1.2	31 (-1; -4)

Determined in accordance with BS EN 410 and BS EN 673

\* Not CE figures

\*\* Predicted figures

Texture figures are the average for the product range and do not represent any individual design.

6.4mm Pilkington **Activ Optilam**<sup>™</sup> Brown based on light brown interlayer.

Pilkington **Activ Optilam**<sup>™</sup> Phon, R<sub>w</sub> (C; Ctr) is determined in accordance with EN ISO 717-1. For other configurations,

R<sub>w</sub> (C; Ctr) based on generally accepted values given in EN 12758. These represent conservative values which may be adopted in the absence of specific measured data.

Pilkington **Activ Optilam**<sup>™</sup> Phon is available in a range of thicknesses. Pilkington **Activ**<sup>™</sup> is also available as Pilkington **Activ Optilam**<sup>™</sup> Clear.

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