



Pilkington **Activ**<sup>™</sup> self-cleaning glass  
Delivering visible benefits for social housing



## Enhanced possibilities

Pilkington **Activ™** can be combined with a number of other Pilkington products to provide enhanced safety, security, noise and thermal control, as well improved aesthetics.

### Energy Management

For thermal insulation, Pilkington **Activ™** can be incorporated into Insulating Glass Units, such as Pilkington **Insulight™**, with Pilkington **K Glass™** or Pilkington **Optitherm™** SN as the inner pane.

For solar control, new Pilkington **Activ™** Blue is now available: a body-tinted solar control glass which allows medium solar control performance in a product which is easily processed. Pilkington **Activ Suncool™** products can also be incorporated into an Insulating Glass Unit. These are dual coated products, with Pilkington **Suncool™** HP on the reverse side to Pilkington **Activ™**. Solar control products are also available in laminated form, either using tinted PVB interlayers or tinted glass laminated to Pilkington **Activ™**.

### Safety and Security

In toughened form Pilkington **Activ™** is up to five times stronger than ordinary glass. It achieves Class A impact safety performance to BS 6206, and if it does break it does so safely into small, blunt edged pieces, reducing the risk of personal injury.

Pilkington **Activ™** 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 performance against risk of accidental injury.

### Noise Control

Pilkington **Activ™** can be included in an insulating glass unit with an acoustic laminated glass, such as Pilkington **Optilam™** Phon, for added noise control.

### Decoration

Pilkington **Activ Stippolyte™** laminated glass can be produced combining Pilkington **Activ™** and Pilkington **Stippolyte™** – one of the Pilkington Texture Glass Range. This could be incorporated with Pilkington **K Glass™** in an insulating glass unit for use in areas which require obscuration and a low emissivity glass, in order to meet Part L. For a coloured effect, Pilkington **Activ™** can also be combined in a laminated glass using either tinted interlayers or tinted glass.

### Fire Protection

Pilkington **Activ™** can be supplied in a combination with our range of fire-resistant glasses for specialist applications. Please contact our technical team for further advice.

## Leading the way in innovation

Being a highly innovative product in its own right, Pilkington **Activ™** is the ideal choice of glass for projects where the embracing of innovative design is a prerequisite. Its revolutionary qualities, together with its ability to be combined with other ground-breaking products, puts it at the forefront of glass development and will enhance both the appearance and environmental properties of any forward-thinking design.

## Case study

### Marco Island

This project is an exciting inner city refurbishment of an old Post Office building in Nottingham.

The building has been converted into apartments and is a good example of utilising an existing disused commercial building to provide city centre accommodation.

For a number of reasons, the project required a very high glazing specification. As the building rises to 13 storeys in height Pilkington **Activ™** was chosen to reduce window cleaning costs. The site is also subject to high traffic noise, so a sound-reducing glazing system was essential, and the developers wanted to reduce solar gain into the building while giving the glazing an attractive cool green appearance. It was also required that the glazing was very energy efficient, so a high-performance low E glass was chosen.

### Glazing instructions

Pilkington **Activ™** must be handled, glazed and maintained in accordance with the Handling and Processing guidelines for Window Companies. The use of silicones must be avoided as these can leach onto the surface of the glass. Copies of these guidelines are available on request.





## An extraordinary product from an exceptional company



Pilkington is one of the world's leading glass manufacturers, with a global reputation for creating innovative new products that give glass a huge range of properties and help it to perform many different roles in architecture. From fire-resistance to thermal insulation, sound reduction and safety, Pilkington is constantly developing new technologies to take glass even further.

At the forefront is Pilkington **Activ™**, the world's first dual-action self-cleaning glass. The key to the performance of Pilkington **Activ™** is its revolutionary coating. This reacts with ultra-violet light in two ways, firstly to break down and loosen any organic

dirt that has settled on the glass, and secondly ensuring that rainwater 'sheets' evenly over the surface, which prevents unsightly streaks from appearing and also washes dirt away. The coating cannot be worn away or rubbed off and will last the lifetime of the glazing itself.

This truly revolutionary product continues working even on cloudy days and during the night to keep windows looking clean with the minimum of effort required by the homeowner or resident. All of which reduces cleaning and maintenance costs and makes Pilkington **Activ™** the ideal choice for situations where cleaning is difficult or costly.

# The cost benefits of Pilkington Activ™ to Local Authorities and Housing Associations

## Cost of installation

Because Pilkington Activ™ keeps itself clean, it negates the need for inwardly opening or fully reversible windows (such as ‘tilt-and-turn’ or pivot windows) to be installed in social housing. As a result, Pilkington Activ™ can offer significant savings to the specifier.

Typically, the cost of installing standard side-opening frames with Pilkington Activ™ represents only one third of the additional cost of installing tilt-and-turn windows in the same project.

## Cost of maintenance

Fully reversible windows are often specified by Registered Social Landlords (RSLs) because they enable cleaning to be undertaken from the inside of the property by the tenant.

However, this still means that the public areas of the building such as landings and stairwells have to be cleaned by the building owner. Also, where properties are of three storeys or more the Housing Authority or RSL is generally liable for keeping the window clean – regardless of the cost. The same burden also applies to properties for special-needs residents (such as homes for the elderly or disabled) which are two or more storeys high.

Pilkington Activ™ can therefore deliver long-term savings for Housing Authorities and RSLs. Without it they would be required to pay substantial amounts for the cleaning of windows in their properties and the ongoing maintenance of reversible windows.

## Pilkington Activ™ – the implications for Health and Safety

### Danger prevention

Tilt-and-turn windows are generally perceived as being dangerous and not suitable for families with young children. There have been well-documented instances in which occupants have

fallen out of these kinds of windows. It is also possible that objects can fall or be thrown out of flat windows endangering people and property below.

By installing Pilkington Activ™, however, specifiers can minimise the risk of such accidents and incidents as standard windows cannot be opened to the same extent as the tilt-and-turn alternative.

### Pilkington Activ™ and the Work At Height Regulations

In April 2005 the HSE implemented its new Work At Height Regulations. These regulations place responsibilities on building owners for the control of work undertaken on their behalf by outside contractors, such as window cleaners. Indeed, Housing Authorities and RSLs will now have to carry out a risk assessment of all window cleaning undertaken on their behalf and ensure that everyone involved in the work is competent and properly equipped.

If a RSL has a number of blocks of flats that are cleaned by different contractors, managing the Health and Safety issues could become a costly, administrative headache. Clearly, by installing Pilkington Activ™ RSLs will be able to save considerable time, money and effort with regard to these new rules.

## Case study

### Old TA centre Gosforth, Newcastle upon Tyne

The properties in this development by Taylor Woodrow ranged from four to six storeys in height. The design of the properties made them unsuitable for a roof-mounted window cleaning cradle system and so would have required the use of a mobile platform to clean the windows. Using conventional fixed-pane and side-hung windows therefore offered a very significant cost saving over the installation cost of fully reversible windows.



## Problems with accessibility

### **Design inaccessibility**

The design of certain buildings makes the cleaning of windows impossible by conventional means. In some instances a cherry-picker is required, thereby incurring additional expenditure. Where this is the case, Pilkington **Activ™** provides the perfect solution.

## Pilkington **Activ™** and Government legislation

### **The Decent Homes Standard**

The Decent Homes Standard (as set by the Office of the Deputy Prime Minister) requires Housing Authorities to provide an acceptable living standard for their tenants by 2010. As a result, many RSLs are currently replacing windows that have reached the end of their life. Getting all of the housing stock to Decent Homes Standard by 2010 will not be reached by some RSLs because of lack of funds. Using Pilkington **Activ™** in a conventional window system can save money by comparison to using fully reversible windows and thus allow more properties to be reglazed for the same budget.

By constantly working to keep itself clean Pilkington **Activ™** can make a significant and positive contribution to the living environment of those residing in social housing by making properties cleaner and better looking.

### **Andrew Stunnel Private Members Bill**

With its focus on environmental responsibility, amongst other things this Bill requires Local Authorities to achieve a reduction in use of water. There are 26 million homes in the UK, and if each is cleaned on average just six times a year it is estimated that over 1.5 billion litres of water is being unnecessarily used and disposed of. In addition, this water is often polluted with detergents and cleaning chemicals which require additional treatment.

Again, by specifying Pilkington **Activ™**, Registered Social Landlords will be helping to comply with the Government's targets.

## Case study

### **Lindrick House, Tees Valley**

Lindrick House is a four-storey building owned by Coast & Country Housing, one of the largest social housing providers in the Tees Valley region. As current safe access regulations prohibit the use of ladders longer than 9 metres and the use of specialist cleaning equipment was proving both difficult to source and expensive to utilise, Coast & Country Housing turned to Pilkington **Activ™** for the perfect solution.

This is actually the second set of multi-storey blocks that this social housing provider has glazed with Pilkington **Activ™**. The first set at Bankfield House was installed in Autumn 2002 and the success of this project ensured that Pilkington **Activ™** was used in Lindrick House two years later.





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