



Pilkington **Activ**[™]

The world's first self-cleaning glass

Handling and Processing Guidelines for Window Manufacturers



PILKINGTON

1 Product Description

Pilkington **Activ™** is a durable, coated, neutral-coloured, self-cleaning glass that requires less frequent cleaning and provides clearer vision during and after rainfall compared to ordinary float glass. It has good scratch resistance and durability and in most circumstances can be treated the same as ordinary float glass.

Under normal conditions the unique coating destroys organic contaminants on the surface and increases the water sheeting action on the coated surface. This allows dirt to be washed easily from the surface and should greatly reduce the need for manual cleaning.

Pilkington **Activ™** can be single glazed or incorporated into an insulating glass unit, with the self-cleaning coating positioned on surface #1, the outside of the building.

However, it should be borne in mind that Pilkington **Activ™** is a high-value product and, therefore, it is important that its handling and processing is carried out in accordance with good practice. It must be glazed following Pilkington recommendations to obtain maximum benefit from its unique self-cleaning properties.

2 Delivery and Storage

The product is a coated glass and care should, therefore, be taken whilst offloading and during storage to avoid damaging the surface.

3 Coating Detector

Pilkington **Activ™** can be identified using a hand-held detector on the coated surface, available from your local Pilkington contact.

4 Handling

The coating is hard and not easily damaged so no particular precautions are necessary during the unloading process. Suction cups can be used on the coated surface, but these must be clean, dry and in good condition and must not slide on the surface.

Whenever the glass is being manually handled, clean cotton or cloth gloves must be used. If the glass requires some form of identification it must be placed on the non-coated surface. The coated surface must not be marked with adhesive labels or wax crayons as subsequent removal may be difficult.

5 Washing

Pilkington **Activ™** is a hard durable coating applied to the surface during float glass manufacture but, as with any coated glass product, care should be taken while washing to prevent damage to the coating. It is essential to ensure that no metal, e.g. cleaning equipment, comes into contact with the coated surface. The following recommendations are given for machine washing, hand cleaning and spot cleaning of Pilkington **Activ™**.

Hand Washing / Spot Cleaning

Pilkington **Activ™** can be cleaned and maintained by hand. However, a mild, non-abrasive, i.e. one that does not contain solids in suspension, detergent and water solution is recommended.

Abrasive cleaners must not be used.

To wash/clean the coating apply the solution to the glass with a clean, soft cloth, sponge or pad and rinse thoroughly with clean water. Dry the glass by wiping with a soft lint-free cloth. Take care to ensure that no abrasive particles are trapped between the glass and the drying device otherwise coating damage may occur.

Commercially available ammonia or alcohol based window cleaners may be used for spot cleaning. However, steel wool or razor blades must not be used on the Pilkington **Activ™** surface.

6 Glazing

Where possible a clean dry gasket glazing system or a system using non-setting oil-free glazing compounds should be used. The gasket should be of high quality that will minimise the leaching out of silicones from its surface.

Silicone sealants can exude oil or plasticisers containing silicones on curing, and long afterwards. These materials are very difficult to remove from the glass and coating. They are usually only visible when the glass/coating is wet, and even then they are only noticeable by the different water droplet formation when compared to non-contaminated glass. Where dry gasket glazing systems cannot be applied, materials based on MS polymers should be used. The use of silicone-containing lubricants on gaskets should be avoided. Nevertheless, the Pilkington **Activ™** coating can be expected to break down such oils and lubricants over time. When glazing into frames do not use glazing tapes that contain oil (e.g. silicone and/or paraffin wax).

NB: Under no circumstances should linseed oil putty be used with Pilkington **Activ™**.

The insulating glass units are supplied with the Pilkington **Activ™** surface identified by the Pilkington **Activ™** hologram. The hologram is in the bottom right-hand corner of the unit on the coated surface. When glazed the hologram should be visible.

Where the glass is adjacent to new lead flashings (e.g. conservatory installations), white carbonate run-off from the lead can stain Pilkington **Activ™** as it would ordinary float glass. This should be minimised by applying Patination oil or Leadshield™ to the flashing when it is new.

Leadshield™ is a trademark of British Lead Mills.

As with all glass, care should be taken to ensure that alkaline leach-out from concrete, etc. does not occur.

It is the fabricator's responsibility to ensure that the recommendations above are adhered to for each installation.

When Pilkington **Activ**[™] is glazed into a building, care must be taken during any further construction work to avoid staining or damage to the coating. The coating must be protected from site contamination such as welding, rusty deposits, cement, plaster products or adhesives.

After building work is completed the glass 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. Then, either spray on or apply by a saturated cloth a cleaning solution (a mild detergent and water solution is recommended) onto the coated surface. Gently rub the wetted coated surface with a clean, lint-free towel or cloth.

Rinse with water* and wipe nearly dry with a dry, clean, lint-free towel or cloth.

Any moisture remaining on the surface will evaporate to leave a clean surface.

The use of a squeegee on the coated surface is not recommended. If it is absolutely necessary to use a squeegee then particular care must be taken to prevent any metal parts from contacting the coating or dirt particles becoming trapped under the blade and dragged across the coating.

7 Transport and Storage of Insulating Glass Units

Care should be taken when manufacturing insulating glass units to ensure adequate protection of the coated surface. Spacers or interleavants should be used during storage and transport. The coated surface can also be covered with standard plastic wrap if additional protection is required.

Care should be taken that the edges of the glass should not be damaged during transport, storage and installation.

8 Repeat Orders, Colour Deviation

Production tolerances can cause slight colour deviations between different batches. These are minimal within a production run. In the case where glass for a project will have to be supplied over a longer period this has to be indicated to the manufacturer to ensure that the colour deviations are minimised.

9 Surface Treatment

Lead, colour overlay and/or Georgian bars can generally be applied to the Pilkington **Activ**[™] surface. However, Pilkington **Activ**[™] will only retain its self-cleaning behaviour on the surface not covered by the lead, coloured overlay or Georgian bars.

The recommendations in Section 6 need to be followed concerning the use of silicones.

10 Recycling

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

**If the water quality is very hard (i.e. greater than 180ppm combined content of calcium carbonate, CaCO₃ and magnesium carbonate, MgCO₃) 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.*

*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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