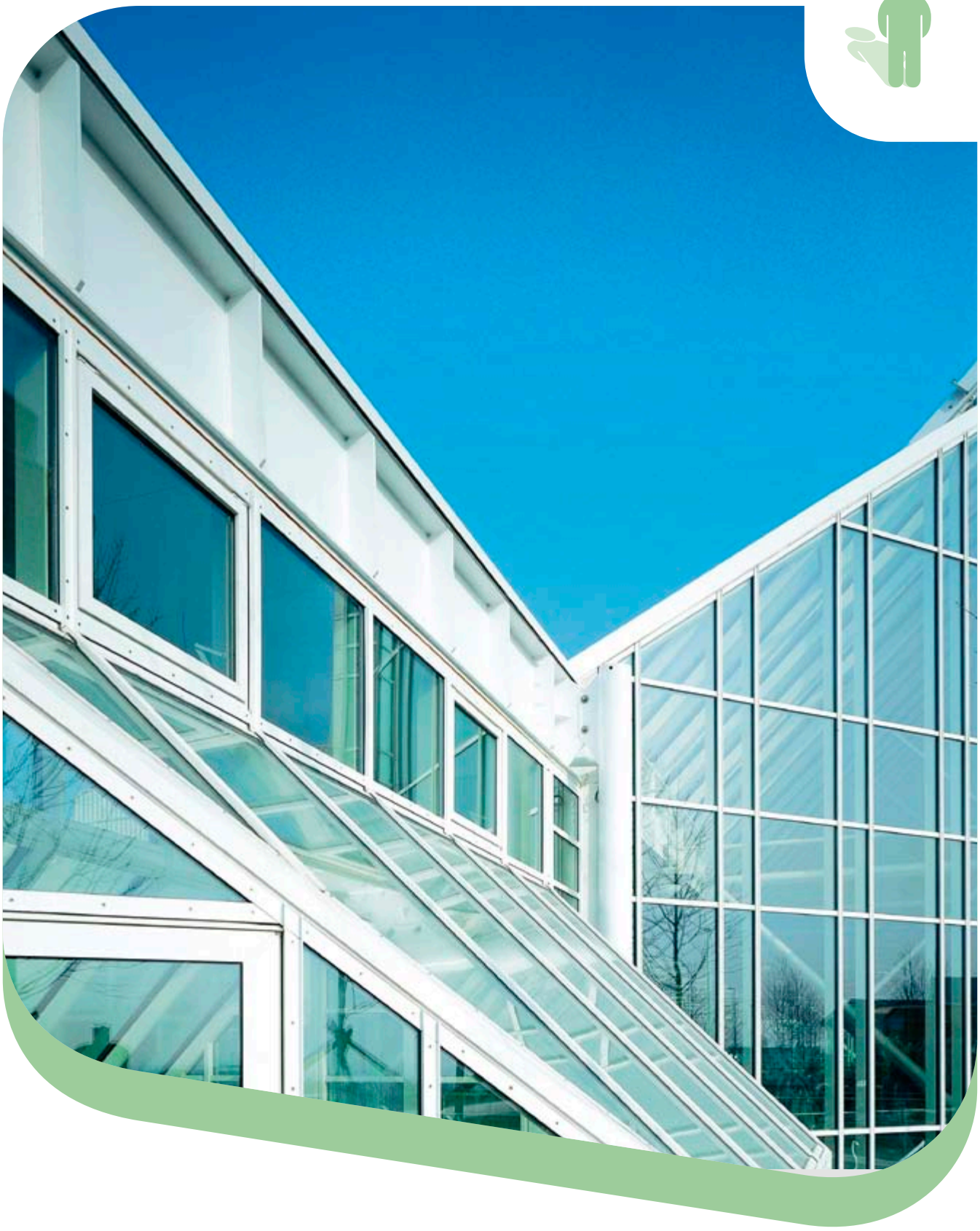
PILKINGTON



Pilkington **K Glass™** N

Handling and Processing Guidelines

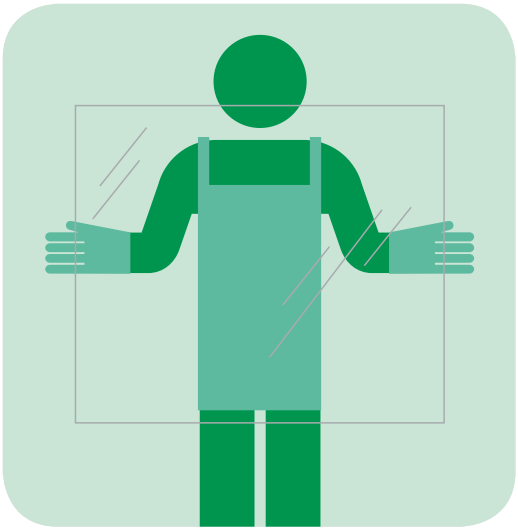
NSG GROUP

Pilkington **K Glass**™ N

1. Handling and Processing Guidelines

The following points must be observed when handling Pilkington **K Glass**™ N:

- Suitable clean gloves must be worn during all work that entails manual contact with the coated pane so as to avoid fingerprints.
- It is also possible to handle Pilkington **K Glass**™ N on the coating side. When doing so, the normal suction cups suitable for floating glass must be used – although these are to be kept strictly clean and undamaged, as otherwise rubber abrasion can occur.
- The coating should face upwards, i.e. away from the work bench, during processing.
- To avoid abrasion marks due to slippage, friction or other relative movements, the coated side must not come into contact with plastic or metal objects, e.g. measuring tapes, plastic transport rollers, metal buttons or belt buckles (when carrying).
  This also applies when cutting shaped panes, on which the coating can be contaminated by abrasion (e.g. during model cuts) if accidentally placing rulers or templates on top.
  The panes should then be removed from the cutting table individually and not stacked.



2. Recognising the coated side

The surface of the coated side is somewhat rougher than the plain side. It is safest to determine the coating side of Pilkington **K Glass**™ N using an electronics test device, e.g. a continuity tester (available from specialist electrical/electronic shops), as the coating is conductive.

3. Storage

Storage is basically as same as for uncoated glass. If the coated side is exposed, this should always be protected against dirt.

4. Cutting

To prevent cutting damage, cutting should always be done on the coated side. We recommend using a highly volatile cutting fluid or dry cutting.

5. Washing

Generally with hard brushes, as for Pilkington **Optifloat**™.
We recommend a detergent additive. If the coating becomes contaminated through improper handling and this dirt cannot be removed by washing, simple cleaning by hand (e.g. with a standard liquid cleaner) is possible. The surface should then be polished with a soft, dry clot. After this the pane should be washed once again.

6. Laminated glass production

To retain its infrared reflective properties, Pilkington **K Glass**™ N must be laminated so that the exposed coating faces the air. To be safe, this should be checked with a test device. The heat flow into the film laminate is delayed on account of the infrared reflection, which means the processing conditions might have to be set to this.

7. Further processing to toughened safety glass (ESG)

Pilkington **K Glass**™ N can be toughened thermally in relation to the system conditions. As toughening furnaces can be very different, we recommend determining the processing conditions suitable for the relevant system in individual cases.
As a rule of thumb, low rather than high toughening temperatures achieve favourable results with extended heating times.
A toughening that is not optimised can result in colour changes and deterioration of the U_g value.
The coated side must face upwards, i.e. ways from the rollers.

8. Quality inspection

The washed pane should be inspected in the insulating glass line (coating facing the inspector). Faults receiving complaint from the end consumer are the responsibility of the insulating glass manufacturer.

9. Processing to insulating glass

There is no need for an edge coating before further processing to insulating glass. Before putting together, it must be ensured that the coating is facing the interspace between the panes. The processing company is responsible for the insulating glass laminate. As a rule, Pilkington Deutschland AG does not accept any responsibility for damage to the coating during processing. Processing to staged insulating glass is possible.

10. Storage: Thermal insulation glass

Coated insulating glass should not be stored or transported in direct sunlight so as to avoid glass breakage due to overheating. If this cannot be avoided, the insulating glass must be covered with a bright sheet.

11. Glazing

To attain the highest efficiency in respect to solar energy generation, the insulating glass unit must be installed so that the coating is at position #3, i.e. on the room-side glass sheet towards the interspace between the panes. The correct insulation situation must be indicated to the glazier – e.g. by labels. To attain a uniform external appearance, the same coating position must be observed within a façade.

Alternatively, the coating can be used at position #4. The U_g value can be reduced further in combination with another coated solar protection or thermal insulation glass at position #2.

12. Cleaning

Pilkington **K Glass**™ N as an insulating glass unit with the coating at position #4 and Pilkington **K Glass**™ N as a mono-pane represent externally coated glass. Outer or inner thermal insulating layers, which as an exception do not face the interspace between the panes of the insulating glass, represent a special case. Mechanical damage to these layers is usually manifested as streaks of surface abrasion, causing a slightly rougher surface.

The coating of Pilkington **K Glass**™ N represents a sturdy and resistant online coating, allowing the glass to be processed easily and cleaned well.

Always work with plenty of clean water when cleaning Pilkington **K Glass**™ N so as to avoid a scouring effect from dirt particles. Only use soft, cleaning cloths or non-abrasive cleaning sponges that are clean.

In general, all standard alcohol- and ammonia-based glass cleaners and slightly acidic cleaning agents will suffice and are compatible with Pilkington **K Glass**™ N.

As with any other glass cleaning – avoid using tools and aids such as spatulas, steel wool or razor blades. These can damage the glass surface or the coating.

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

Pilkington Deutschland AG
Hegestraße 45966 Gladbeck
Tel.: +49 (0)2043 4 05 56 52 Fax: +49 (0)2043 4 05 56 66
E-Mail: marketingDE@nsg.com
www.pilkington.de

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