

**Information on storage, assembly and use of fire resistant  
Pilkington Pyrostop® and Pilkington Pyrodur®  
single and double or triple glazed glass units  
by Pilkington IGP Sp. z o.o.**

Pilkington IGP Sp. z o.o., Sandomierz, ul. Portowa 24 is a manufacturer of Pilkington **Pyrostop®** and Pilkington **Pyrodur®** type fire resistant glazing materials. The glass protects people and property in case of fire. Pilkington **Pyrostop®** and Pilkington **Pyrodur®** are available with different design and thickness for various fire resistance requirements. Depending on the customer requirements, both types are available as single panes or as components of multi-laminated glass units.

To maintain satisfaction and trust of our clients in Pilkington **Pyrostop®** and Pilkington **Pyrodur®** as fire-resistant glazing material, we hereby present basic information on storage, assembly and use of our products. Note that this document includes only basic information and guidelines regarding our products.

We also encourage our clients to refer to relevant professional literature, to contact us or participate in trainings organized by Pilkington IGP Sales Department and Consulting Office.

**General:**

1

Pilkington **Pyrostop®** and Pilkington **Pyrodur®** are designed to provide special, highly specialized fire safety parameters of the building.

**Due to a specific design and weight (higher compared to standard glass)  
Pilkington Pyrostop® and Pilkington Pyrodur® are much more susceptible to  
damage during handling, storage and assembly in the building.**

High price of Pilkington **Pyrostop®** and Pilkington **Pyrodur®** is also a factor inducing special caution. The price is much higher compared to standard glass, and thus the loss related to possible damage is substantial.

**I. Transport and storage**

All fire - resistant glass must be stored in a dry place; do not expose to rain, direct sunlight or other heat sources. It applies both to glass delivered on stillages and packed in wooden crates.

The products must be stored vertically, with a maximum deviation of 6°. The product weight shall be supported by two rigid bearers, and direct contact with metal elements must be avoided.

**PILKINGTON IGP Sp. z o.o. z siedzibą w Sandomierzu**

27-600 Sandomierz, ul. Portowa 24, tel. 48 15 8323041-49 lub 48 15 8326100 fax 48 15 832 62 89  
REGON 006911139 NIP 123-00-06-857 Sąd Rejonowy w Kielcach X Wydział Gospodarczy Krajowego  
Rejestru Sądowego KRS 0000012897 Kapitał zakładowy: 506 500 PLN  
Zarząd: Prezes – Krzysztof Granicki  
[www.pilkington.pl](http://www.pilkington.pl)

Maintain a 90° angle between the glass surface and support surface of the bottom edge to prevent possible shift of glass layers during storage and transport.

Spacers and elements protecting the glass against falling must not damage the pane and the protective film on the edges.

Make sure the individual panes are separated by cork pads.

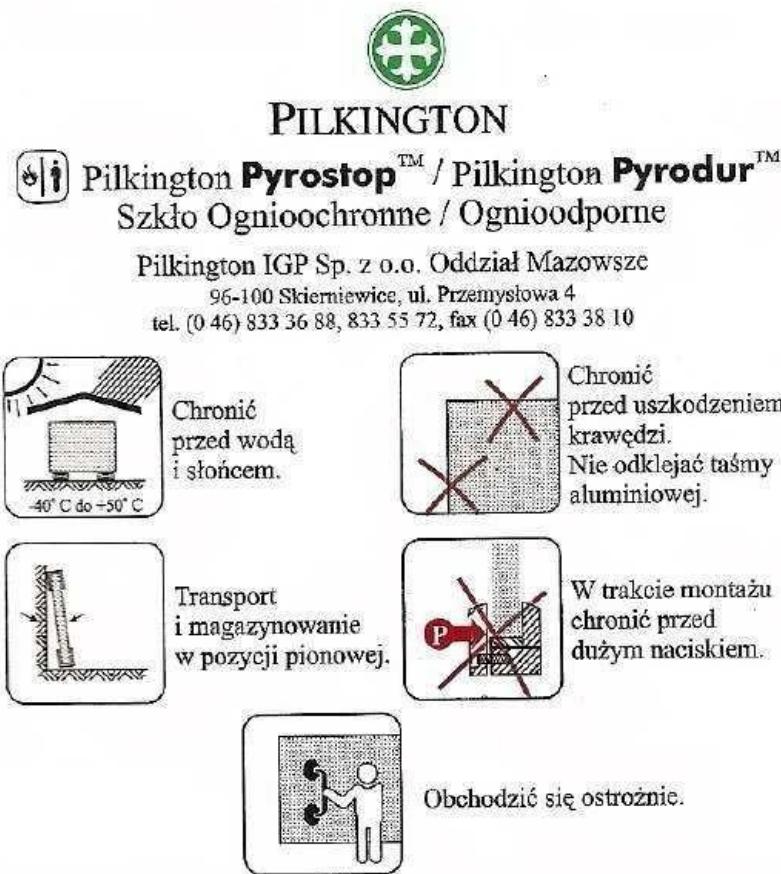
Before the assembly, each pane must be carefully inspected for fractures, cracks, and damage of a protective film (cuts, tears, unsticking).

If any defects are found, a complaint must be made; installation will render the warranty null and void.

During an operation related to reloading, handling and installation it is forbidden to support the pane on its corner to rotate it.

Removal or tearing off the protective film from the pane edges is forbidden and may result in loss of pane integrity.

Each Pilkington IGP fire-resistant pane is fitted with a special label including the above guidelines.



## II. Pilkington Pyrostop® and Pilkington Pyrodur® assembly

**It is of the utmost importance to determine, which side of the pane is to be directed to the interior and exterior of the building.**

If panes are installed in exterior walls (windows, doors, skylights), check which side of the pane is fitted with the following label:

Szklić szybą Pyrostop/Pyrodur  
do wewnętrz budynku  
Touto stranou dovnitr  
This side interior

**The pane must be installed with a label inside the building!**

If the label is missing do not install and contact Pilkington IGP for guidelines to prevent incorrect installation.

**Incorrect installation will lead to irreversible defects.**

It is crucial to apply even pressure to the pane edges. The pressure must not exceed 20 N/cm at the pane perimeter.

3

## III. Cleaning

Use clean water with cleaning agents or standard soft cloths or sponges. Do not use alkaline or fluorine based cleaning agents. Grease and sealants can be removed with readily available solvents (ethyl alcohol, isopropyl alcohol) and rinsed with plenty of water.

Cleaning small spots with abrasive cleaning agents or materials (steel wool, razor blade etc.) requires special care to avoid scratching. Do not use those tools to clean the whole surface.

### Cleaning panes on site

Cleaning water, cloths and sponges may not contain sand or other solids.

Do not remove dry cement dust and other dry impurities with abrasive properties. Use large quantity of water for heavily soiled panes.

Water mixed with fresh concrete has corrosive properties and its contact with the pane surface must be avoided. Remove cement slurry and other building products immediately - leaving the sediments on the glass may cause permanent damage (fogging).

#### PILKINGTON IGP Sp. z o.o. z siedzibą w Sandomierzu

27-600 Sandomierz, ul. Portowa 24, tel. 48 15 8323041-49 lub 48 15 8326100 fax 48 15 832 62 89  
REGON 006911139 NIP 123-00-06-857 Sąd Rejonowy w Kielcach X Wydział Gospodarczy Krajowego  
Rejestru Sądowego KRS 0000012897 Kapitał zakładowy: 506 500 PLN  
Zarząd: Prezes – Krzysztof Granicki  
[www.pilkington.pl](http://www.pilkington.pl)

## Handling

Heaters, radiators and blowers shall not directly affect the fire - resistant glass. Heaters installed near the panes must be fitted with special protection, and the distance shall exceed 30 cm.

Asphalt pouring process may result in high thermal load and the fire-resistant glass must be adequately protected. Glazing works should be commenced after the asphalt layer is completed. If it is not possible, the multi-laminated glass units must be protected against thermal radiation with a suitable cover. A solar radiation requires additional cover on the glass units' exterior. It particularly applies to coated panes.

**Grinding/welding** near windows requires efficient, direct protection of glass surface against spatter, sparks etc.

**Pits/defects** on the surface may be the result of chemicals in building materials and cleaning agents, e.g. water glass additives. Chemicals may cause pits after prolonged contact with glass.

General safety measures may not be specified due to various reasons. They must be defined and implemented based on the specific conditions.

**Shading and heat accumulation** which may occur as a result of specific installation conditions, e.g. niche, shutter, awning and radiators etc. may cause glass cracking as a result of temperature difference.

Coating the glass with paint, film or other materials subject to solar radiation may cause overheating of glass and refractory layers.

It applies to all fire - resistant glazing materials installed outside, without proper ventilation and as a lining of building components (e.g. covering spandrel or cornice).

September 2014

**Krzysztof Skarbiński**

Quality Manager

**Pilkington IGP Sp. z o.o.**

Tel.: +48 601 506 051

e-mail:Krzysztof.Skarbinski@pl.nsg.com