

Warranty on plastic glazing systems

Plast-System Sp. z o.o. SP. k., later the Producer, warrants that COMBINED PANES and WINDOWS are free of manufacturing and/or material defects.

1. Warranty terms and conditions

The Producer gives a 2 year warranty on all products. Throughout this period the Producer guarantees that his products are free from any faults. The warranty covers all elements of the windows and glazed units with exception to the optical defects, moist condensation or deformations, which are subject to separate consideration. In case the Buyer does not comply with the Installation Instructions or Cleaning Instructions given by the Producer or in case the Products are used against their designed application or in case of any negligence caused by the Buyer, the warranty shall not be granted.

1.1. Optical defects

The Producer gives a 10 year warranty on plastic sheets with regard to their resistance to UV radiation (yellowing) and their declared light transmittance.

This warranty includes the warranties given by the producers of the materials on the optical and mechanic properties of the materials and the changes defined for the duration of the warranty.

Quality standards which apply to the traditional glazing do not apply to plastic glazing nor its production process.

Visible faults such as: shades and/or change of colours, blurs, precipitations, or waves of the surface resulting from scratching or pressing shall be justified as a warranty claim only when they are visible directly after door installation and after the protective film is taken off; from the distance of 2 meters, and only when such faults are visible in a daylight without the use of any optical tools, and when observed at the angle of 90 degrees from the outside to the inside, and which significantly damage the visual look of the door.

Glazed units made of coated sheets (HARD) is guaranteed to be free from the above mentioned factors for the period of 2 years from the date of purchase.

The Producer does not bear any responsibility for small differences in the colour of the window frames (ABS or ASA). Such small differences might be caused by the physical properties of the materials they were made of. At the same time the producer shall

make the effort to minimize such differences to a minimum. Additionally, the Producer shall make the effort to deliver one identical colour of the frames within one batch.

1.2. Moist condensation

The warranty on the resistance to permanent condensation of glazing units and windows is given for 2 years from the date of purchase. Throughout this period the Producer guarantees that the glazing systems will not be permanently condensed with moisture.

The Producer would like to draw your attention to the natural property of plastic sheets that is absorption of moisture from the air. It is linked to several factors and their combination. The main reason is air moisture diffusion caused by the following factors: air pressure, air humidity, temperature and condensation point. In these conditions most materials behave as membrane and diffusion is unavoidable. Therefore, the fact that moisture condensation may appear inside the glazing shall not be considered as a defect of the product and shall not be considered as a subject to claim.

Changeable temperatures and weather conditions may lead to moisture condensation inside the glazing. Such condensation is not permanent and it disappears with the change of the weather conditions. The Producer does not give warranty on moist condensation on glazed units or windows installed in not-heated or poorly heated buildings, with high humidity or with poor ventilation.

In case when glazing systems are to be installed in places of higher air humidity, the Producer advises to order glazed units with desiccant or permeable film, which allow the moisture condensation to go out quicker from inside of the pane.

1.3. Linear deformation

Linear change of plastic sheets is their natural tendency. Combined plastic sheets made of SAN, PMMA and PC are subject to linear changes at variable temperatures. Plastics show higher linear change than metals and this must be taken into account when mounting the sheets into frames.

Beyond the thermal linear change, plastic sheets have a natural tendency to absorb water or moist content from the air, which depending on the weathering conditions, can effect in an additional dimensional change.

Here are the data concerning the coefficient of linear thermal change and water absorption:

Coefficient of linear thermal change:

SAN 5-7 K-1x10⁻⁵ (DIN 53752)

PMMA 7 K-1*x10⁻⁵ (DIN 53752)

Water absorption:

PMMA 24h/23 °C - 50x50x4mm³ ISO 62 – 0,2 %

SAN 24h/23°C – 50x50x4mm³ - 0,15 – 0,30 %

1.4. Indentations of stainless steel frames

The indentations of the stainless steel frame which are visible from a short distance only and from a certain angle are not a defect of the product and they shall not be considered as ground to justifying a claim. They are the result of cold welding of the screw nests to the underneath of the window frame. After welding each frame is brushed and the indentations are levelled to their minimum.

2. How to lodge a claim

When a claim is lodged (electronically), the following documents have to be sent to the Producer:

- completed Claim Form or a detailed description of defect
- photographs of claimed goods
- invoice with the claimed goods marked on it
- date of the order and delivery date
- date when the defect was noticed

The glazing unit or the window, which is the subject of the claim, should be sent to the Producer upon former notification.

In case the Producer finds the claim justified, he is obliged to deliver new product/s within 14 days from the date the claim was justified. The new products shall be delivered to the Customer's standard delivery address. The Producer shall not take any responsibility for additional costs that might arise from replacement of the products at other address. Each claim shall be considered individually.

3. How to deal with goods damaged during transport

In case when the Customer notices that the delivered goods have damaged packaging (torn boxes, torn stretching film, crushed boxes or other visible damages), the Customer is obliged to make a protocol of goods receipt with information of some goods being damaged. The protocol should be signed by the driver, who delivered the goods, and sent to the Producer in electronic form.

In case when the damage is noticed after the driver left, the damage should be instantly reported to the Producer together with the following documents:

- photographs presenting the damages
- description and number of damaged packages
- number of damaged items
- delivery date
- order number

4. Instructions on the installation and storage

The warranty covers the glazing systems and windows which have been used in accordance with their intended use, and which have been used properly and accordingly to the Producer's instructions.

Checking whether the glazing units or windows are compatible with other parts and materials used for a given project is the responsibility of the Customer.

During the installation of the glazing units and windows, the properties of the materials used in the glazing, such as the coefficient of expansion, must be taken into consideration. It is important to pay attention to the free (without tensions) installment of the glazing units or windows. The warranty shall not cover any scratches or damages of the glazing which result from tensions or stresses caused by improper installment.

Glazing must not be exposed to any aggressive cleaning materials such as solvents, abrasives, inappropriate cleaning agents, lime, cement and any other dirty building materials.

During transport and storage the glazing panes and windows cannot be exposed to water, rain, ice or snow longer than 1 day. The storage of glazing units in the flat position cannot be longer than 3 days.

As long as the glazing is covered with protective film, they cannot be exposed to the extreme temperature fluctuations or UV radiation.

Our instructions and advice on installation and applications of our glazing units is based on our best knowledge and experience. However, it does not discharge our customers from the obligation to do tests on their own.

5. Windows installation

TORQUE FORCE (Installation of windows on door panels)			
No	WINDOW MODEL	DESCRIPTION	TORQUE FORCE (Nm)
1	345670BLSTSS	OVAL	1,6
2	336640BLSTSS	RECTANGULAR	1,6
3	324490BLSTSS	RECTANGULAR	1,0
4	344532BRSTSS	RECTANGULAR	1,4
5	370680BLSTSS	RECTANGULAR	1,6
6	203610BLSTSS	RECTANGULAR	1,8
7	430770BLSTSS	RECTANGULAR	1,6

Before mounting a window on a door panel, it is important to make sure whether:

- the cut out in the door panel is suitable for the window to be installed
- panel thickness is compatible with the window
- the surface of the door panel is flat – in case the surface of the door panel is with dimples or inequalities deeper than 1,0 mm (0,5 mm in case of stainless steel windows) additional sealant is required.

6. Cleaning the glazing

Glazing made of plastic sheets has low resistance to scratches. Therefore, any cleaning can cause scratches on the surface of the glazing. The only exception is glazing made of coated (HARD) sheets – materials which are resistant to scratches.

Any scratches resulting from cleaning activities are not covered by this warranty.

Cleaning the plastic glazing should be performed accordingly to the Producer's Cleaning Instructions.

Using aggressive cleaning agents or tools with sharp edges such as scrub-brushes, window scrubs or stopping knives, and also cleaning with the use of high temperatures shall result in forfeiture of the customer's rights under this warranty.

7. Cleaning of stainless steel windows

For cleaning stainless steel frames use a piece of soft and not scratching cloth. Stainless steel can be cleaned with the use of agents which contain alcohol or solvents as these substances do not damage the anti-corrosion properties of stainless steel.

Do not use: any substances which contain chlorides, salt acid or cleaning agents for silver. Remember to apply the proper cleaning agents on the stainless steel frame only. Avoid applying these substances on the plastic glazing as they will damage the surface of the plastic glazing permanently.

Instruction of cleaning the glazing see point 6.

8. Dimension tolerances

When placing an order for combined plastic panes, the orderer needs to take into consideration the dimension tolerances:

- **Total thickness**

Plastic sheets used for the production have the following thickness: 1,5 mm, 2,0 mm, 2,5 mm, 3,0 mm etc. However, it needs to be remembered that there are some differences in their actual thickness. The accepted thickness tolerances for plastic sheets are the following:

SAN:

1.50 - 2.50 mm ± 10%

> 2.50 mm ± 5%

PC:

2.0 mm - 3.0 mm ± 10%

4.0 mm up to 15 mm ± 5%

PMMA:

1.8 mm up to 2.7 mm ± 10%

2.8 mm up to 15 mm ± 5%

It means that combined panes made of plastic sheets which have defined thickness by the orderer, will have a specified tolerance. The total thickness tolerance of the combined plastic pane is: **± 0,6 mm**

- **Length and width**

The length and width tolerances that must be taken into consideration when ordering combined panes is: **± 3 mm**

The above mentioned tolerances must be taken into consideration when placing an order for both combined panes and windows.