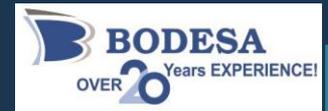
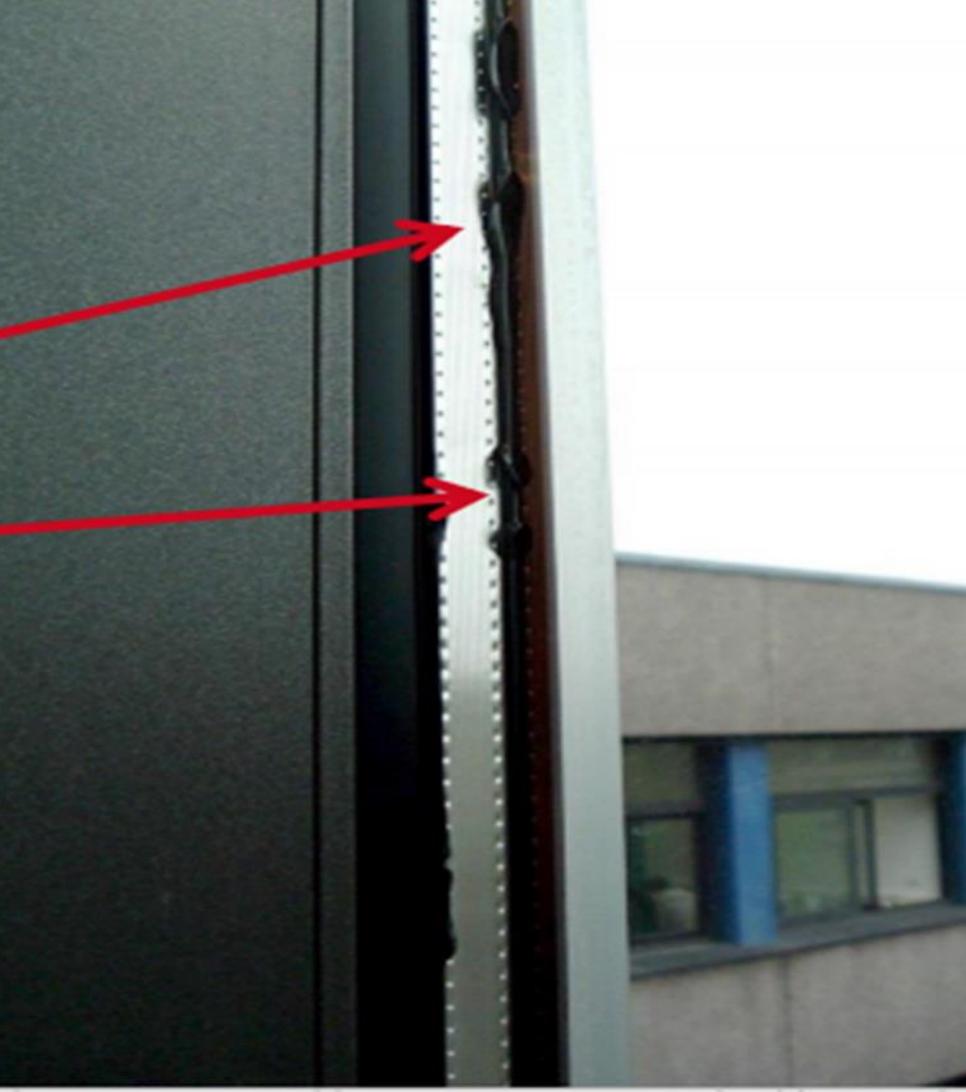




Visualization of the Standard

2020 m.





Expansion of primary sealing

Primary sealing (Butyl) is between the frame and the glass, along the glass edge, along the glass unit perimeter.

When the glass unit is installed in the frame, the sealing may expand into the visible part of the glass unit area.

This is not a defect.

The expansion of butyl is influenced by:

- ambient temperature;
- installation of the unit glass in the frame

Pressure valves

If the glass units will be transported in mountainous areas or installed in highland where the air/ambient pressing is quite different from the pressure inside the unit, pressure valves are mounted inside every chamber of the unit.

2 pressure valves shall be mounted in every chamber, if the unit size is ≥ 4 m².

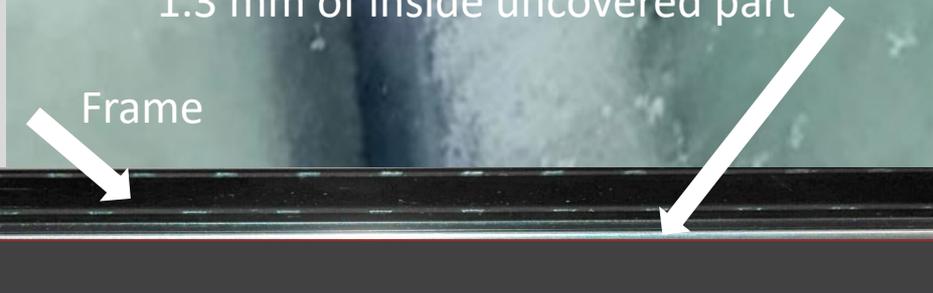
Pressure valves

Swisspacer-type frames can use pressure valves designed especially for them. They are screwed into the outer edge of the frame and sealed with a secondary sealing. They are not visually seen inside the glass unit. They perform the same function as traditional valves, mounted inside the glass unit.



Area covered with Butyl with leaving of
1.3 mm of inside uncovered part

Frame

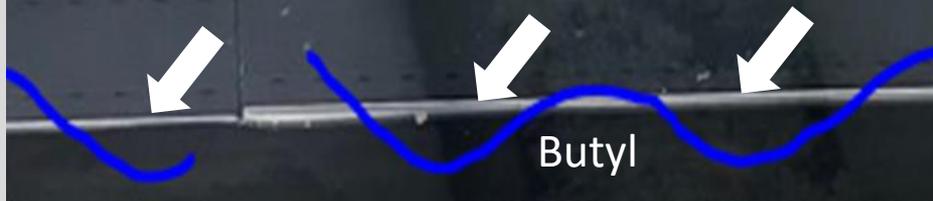


Frame

Area covered with Butyl



Area covered with Butyl with leaving of
1.3 mm of inside uncovered part

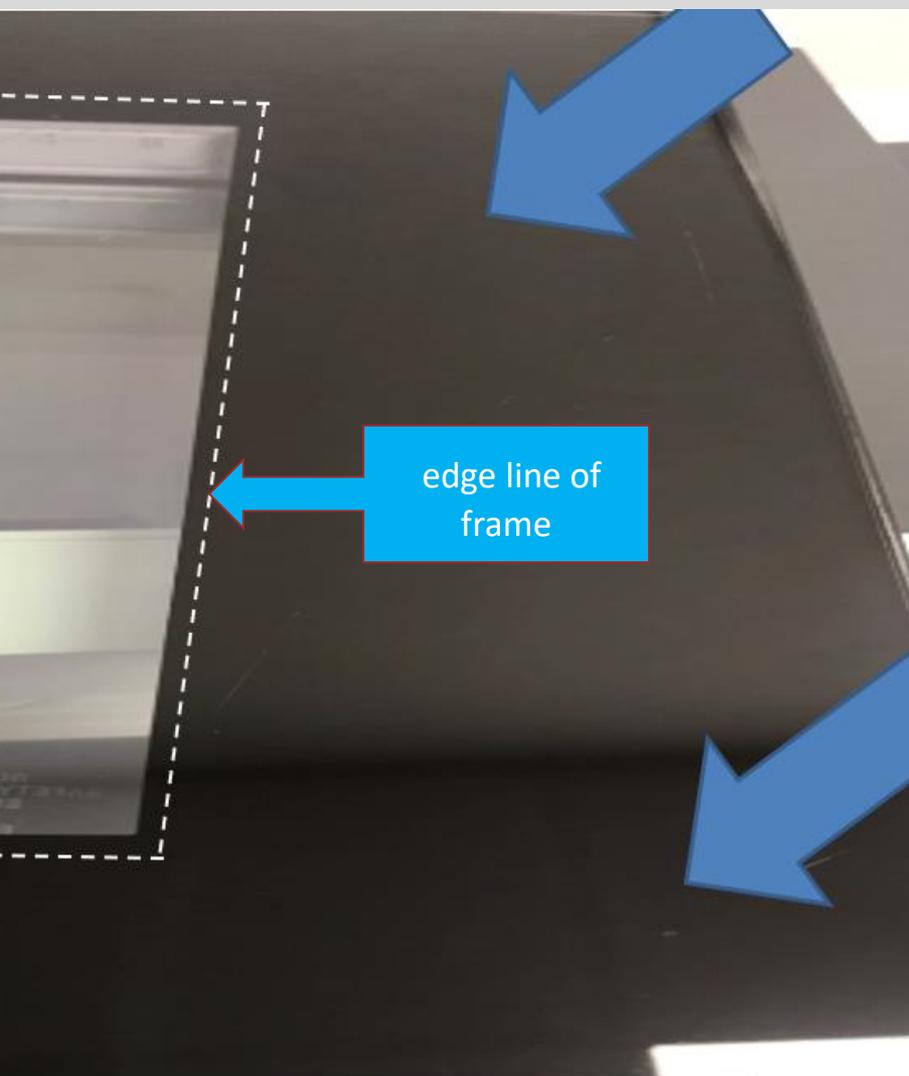


Visibility of the metallized part of the frame

Chromatech Ultra Frame.

Not the entire metallized frame edge is covered with a primary sealing (Butyl) in order to prevent Butyl from expanding more than 2 mm inside the unit during production.

This is not a defect.



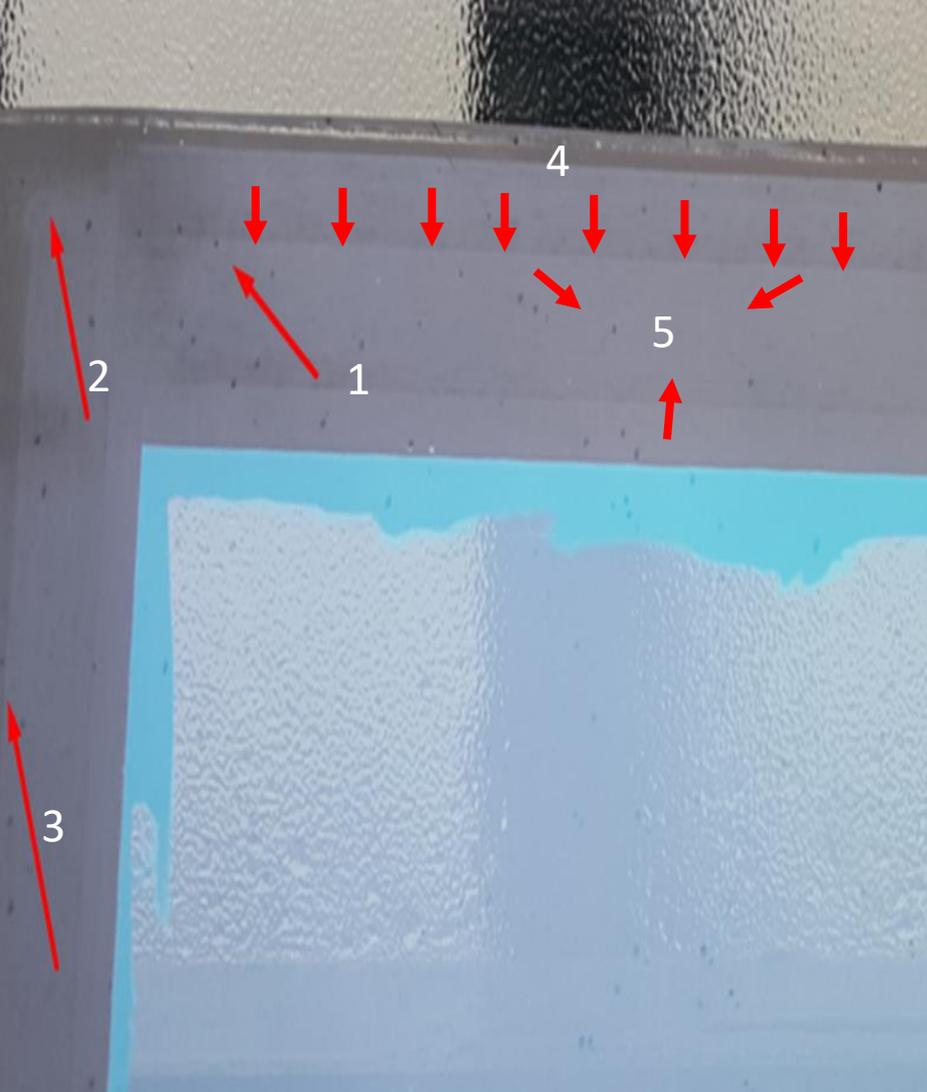
Shade of the glass unit covering

The color of the glass covering surface will be homogeneous in the following cases:

1. Coloring with TEA Paints

For example, the inner surface of the glass is covered with a TEA coating that covers the primary sealing and frame (dotted line). The TEA coating is shifted 2-3 mm inside the glass unit.

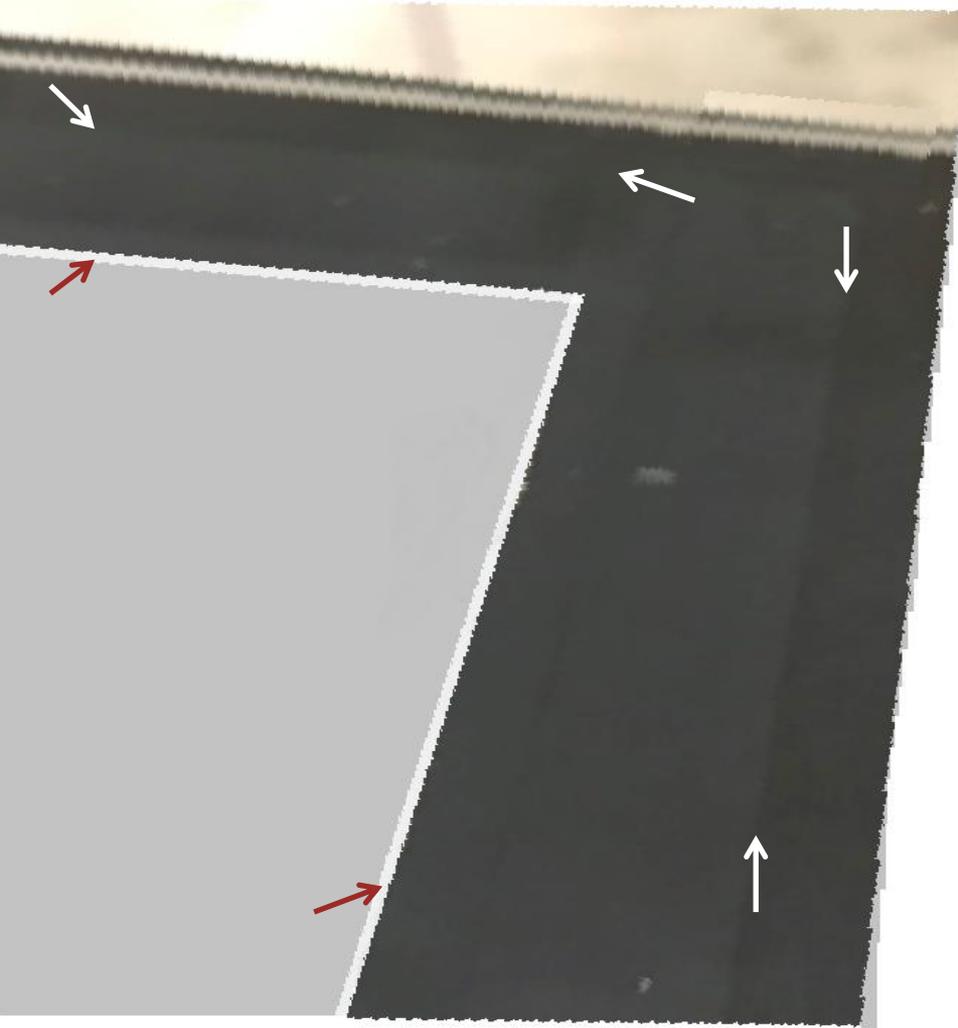
2. When using Swisspacer black frames.



Removal of glass protective covering (Low-E)

During one stage of grinding, the disc removes 10 mm of the glass protective covering (Low-E). In this case, the removed surface of the covering will be almost homogeneous (5), except for the corners (2) where the disk stages overlap (grinding several times).

When the width of removed covering is more than 10 mm, the removal is performed in several steps and darker lines at the connections (3,4) and at the corners (1, 2) will be visible. These effects are not a defect of the product; they are always present when the covering is removed with the help of discs.

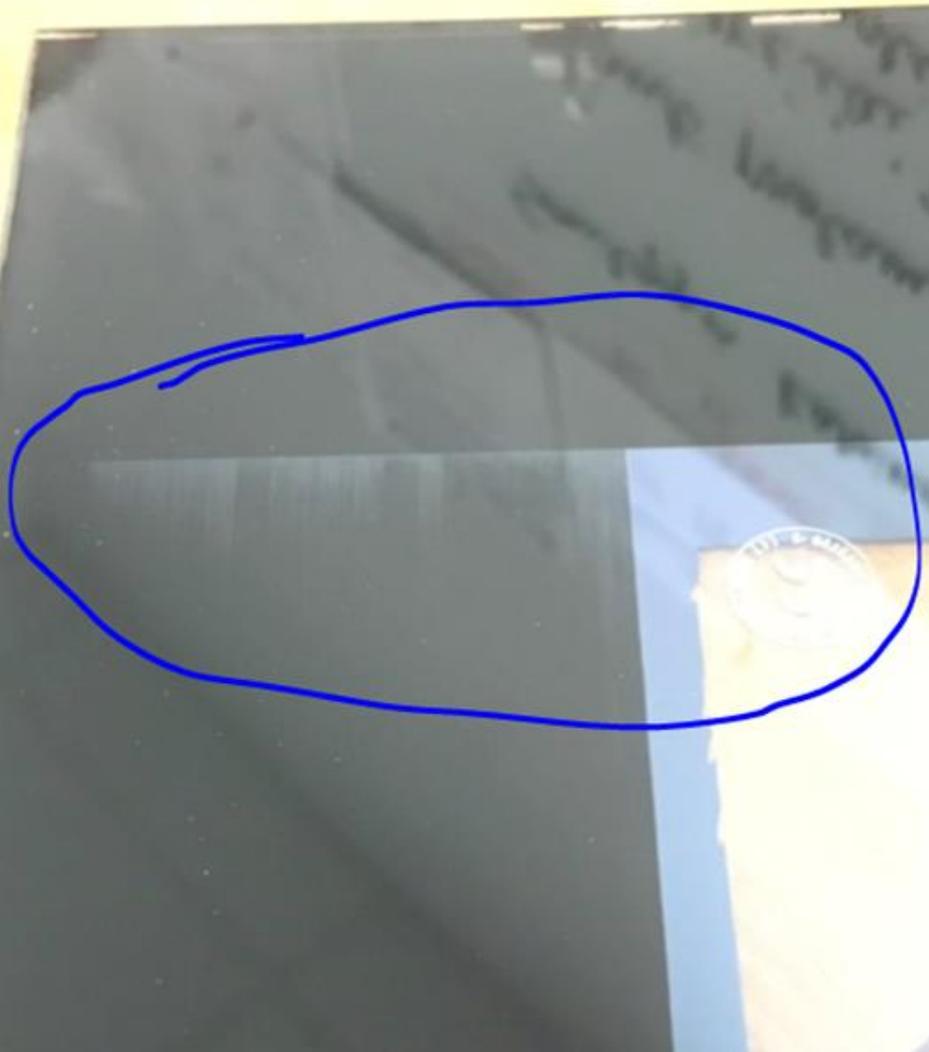


Covering with secondary sealing after the grinding of glass surface

The photo demonstrates changes (white arrows) of grinding lines on glass after the removal of protective covering, when the covering is removed with the help of grinding discs, the removed covering is wider than the disc width (10 mm) and the grinding of the whole width is performed several times.

This is not a defect.

Red arrows – visible frame edge before primary sealing.

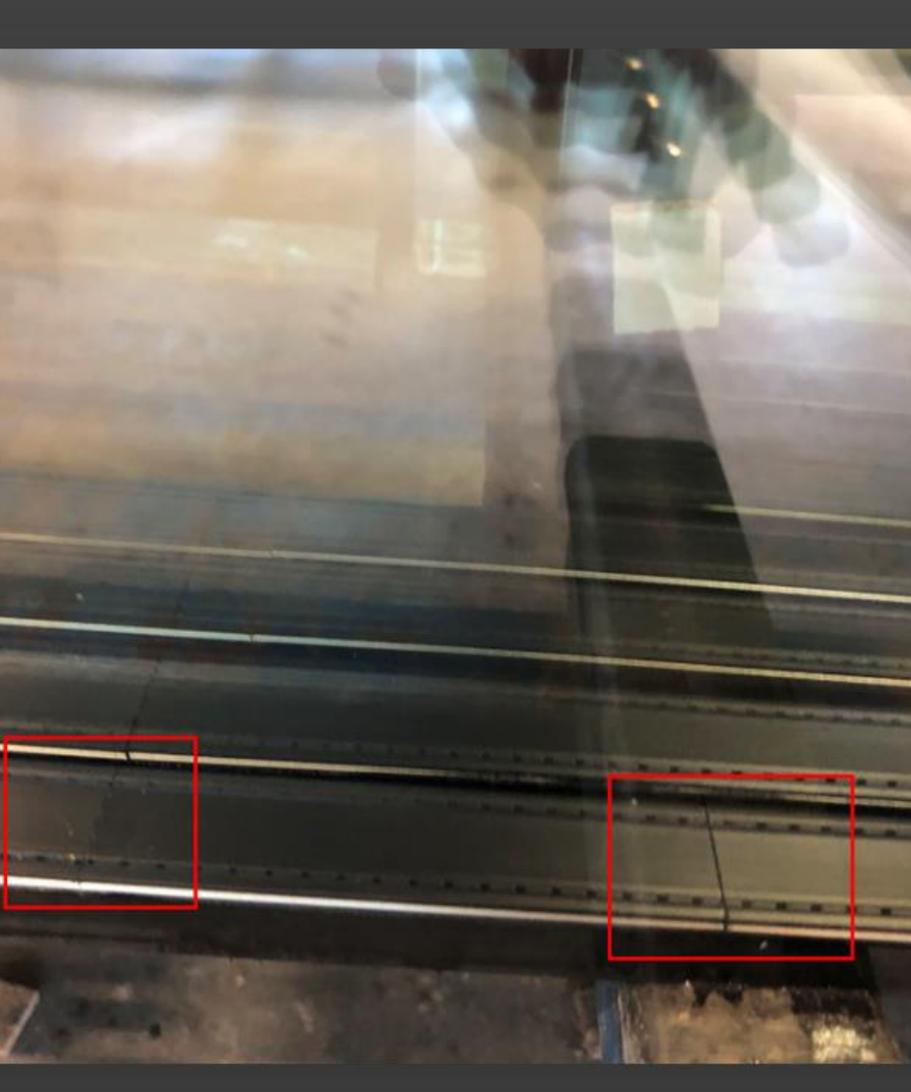


Glass after the removal of protective covering (Low-E)

The photo demonstrates visible changes on glass, which appeared in the connections during grinding.

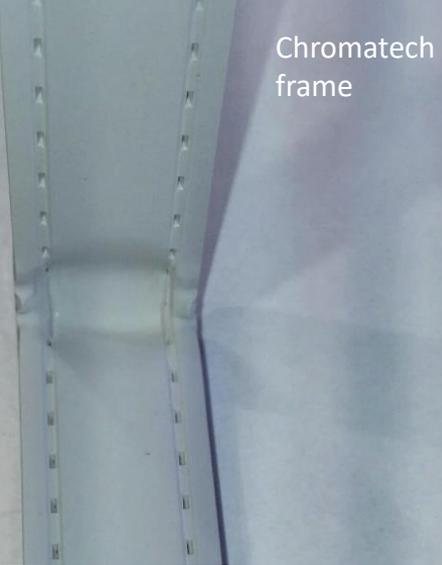
This is not a defect.

This effect is always present when the covering is removed with the help of discs.



Connections of the bended frame ends

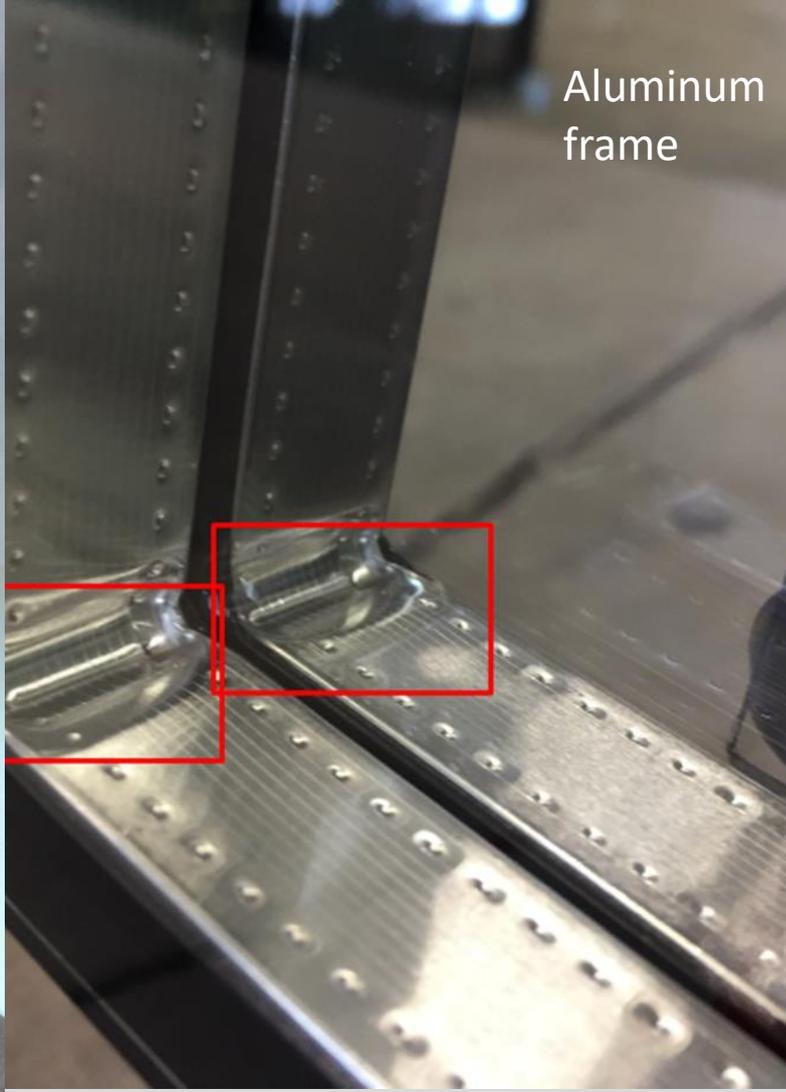
When bending frames by the means of bending device, more than one connection along the frame perimeter is possible. The number of connections depends on the frame size. The position of joint is influenced by the bending device. According to the standard, the maximum number of connections shall not exceed 4 in the one chamber of the glass unit.



Chromatech
frame



Swisspacer
frame



Aluminum
frame

Corners of bended frames

The visible compression mark in the frame corners are formed by the bending tool of the automatic frame bending device.

Depending on the frame type, the shape of the compression mark may vary.

This is not a defect.

Example 1.

Surface color and texture of internal georgian bars and frames

In frames with imposters/duplexes, where the color code of the frame and imposters/duplexes is the same, but the surface texture and color shades may vary, depending on the viewing angle, illumination, type of glass and processing thereof (e.g. tempering).

This is not a defect.

Before ordering products with internal georgian bars / duplex bars, Customer shall order an example of the product.

Example.2.

Texture of internal georgian bars and frames

The differences of texture of internal georgian bars and frames is presented on the Fig. 2

This is not a defect.

Before ordering products with internal georgian bars / duplex bars, Customer shall order an example of the product.



Anisotropy

Anisotropy is the phenomenon typical for the hardened glasses due to the internal stresses resulting from the glass tempering process. Due to the anisotropy, dark circles or strips can be noticed, which vary depending on the viewing angle, if the glass is in polarized light or if polarized sunglasses are used. Polarized light is a part of the normal daylight. The degree of polarization depends on the weather conditions and the position of the sun. The double refraction effect is more clearly visible when looking at the glass at acute angle or in facades where glass units are installed at right angles.

This is not a defect.