

Guarantee Terms and Conditions for the usage of delivered exterior and interior glass elements (insulated glass, roof lights, floors, railings, doors, panels etc.) and safety instructions:

Untempered glass – (float glass, laminated safety glass, Lacobel, mirrors) The glass should not be exposed to thermal or mechanical strain. It is especially important to avoid the so-called thermal shocks that could result in the glass panes getting broken. A possible difference in temperatures within one piece of untempered glass should not exceed 20°C.

Warning: If damaged, untempered glass will break into very sharp pieces (“glass splinters”) that present a significant risk for getting hurt!!! To remove these glass shards, always wear personal protective equipment!

Laminated safety glass – Even after breaking, the glass remains in one piece and does not present an imminent risk of injury. An exception are glass floor elements where it is necessary to leave the floor immediately after the glass (even one single element) has been broken and to notify the glass supplier as quickly as possible.

Tempered glass – Type of glass that is much more resistant to thermal or mechanical strain. This property is the result of the inner tension achieved during the production process. However, the inner tension may be quite easily disrupted by pressure applied to one point. For this reason, it is necessary to avoid any possible hits to the glass by heavy and sharp items. Due to its higher thermal resistance, tempered glass may be exposed to thermal shocks, i.e. to differences in temperatures within one piece of tempered glass of up to 40°C.

When broken, tempered glass crumbles into many small blunt granular pieces which do not present an imminent danger of injury.

In exceptional cases, NiS inclusions contained in tempered glass may cause its spontaneous breakage. OBSIDIAN a.s. is not liable for such defects and they may not be a subject of complaint. As a preventative measure and upon the request of the Customer, a so-called Heat Soak Test may be carried out at the expense of the Customer. The Customer will always be made aware of the possibility to have the Heat Soak Test carried out in the price offer.

Insulated glazing – The glazing consists of two or more glass panes (see the above described types: float glass, laminated safety glass and tempered glass) separated by spacers. The cavity between the panes is filled by inert gas. The safety characteristics of insulated glazing depend on the use of the individual types of glass panes (float glass, tempered or laminated safety glass). In addition, the following rules must be adhered to:

- Immediately after the unloading of the glass transportation rack from the freight forwarder vehicle, the **belts** (or bars) securing the stability of the insulated glazing during the transport **must be loosened**, otherwise the glazing might break;
- Should the glazing be stored outdoors, it must be **covered by a canvas** in order to prevent the creation of thermal shock and the subsequent risk of breakage;
- **All labels and stickers must be removed from the glass surface** immediately after the installation; otherwise this might cause heat concentration on a small area resulting in the breakage of the glass;
- Insulated glazing **must not be covered with new stickers or have their colour additionally changed**; otherwise, local differences in temperature may cause the glass to break (as prevention, the use of tempered glasses is recommended);
- When welding or grinding near windows, **sufficient protection of the glass surface must be ensured**;
- Special caution is needed when performing construction works near glass elements, as **chemical agents contained in the construction materials may cause damage to the glass**;
- If additional use of silicon, colours, paints or solutions etc. is needed near the glass, it is necessary that the Customer contacts OBSIDIAN a.s. who will **check the compatibility** between these products and bonding agents used during the production of insulated glazing; otherwise, there is a risk of a permanent damage to the glass!
- The glass must be regularly cleaned, if possible also during the construction phase;
- The minimum permissible distance between the insulated glazing and heating units is 30 cm from the surface of the glass, under the provision that the heating medium has a maximum temperature of 65°C and the air can flow over the whole surface of the glass;
- For glazing, in particular large-format glazing, special attention must be paid **not to position dark objects (e.g. furniture) near the glazing**, as this might increase the energy absorption of the inner glass pane which could lead to an increase of local temperature and subsequent difference in glass temperature, resulting in breakage of the inner glass pane (as prevention, the use of tempered glasses is recommended).

Ironwork and framework – Only the Supplier may interfere with or modify the ironwork and framework. Warning: inappropriate handling, repair or modification may result in an imminent danger of injury!!!

If you have any questions regarding the use of delivered glass, feel free to contact your Supplier - OBSIDIAN a.s. – any time!

Maintenance of glass elements:

For the cleaning of glass elements, the usual non-aggressive types of cleaning detergents must be used. Powder-based detergents or detergents containing abrasives must be avoided (as they could result in permanent damage to the visual quality of glass and ironwork surfaces).