

GENERAL

This document is valid for the entire range of the product families CONTRAFLAM, SWISSFLAM, CONTRAFLAM STRUCTURE and its insulating glass units. When using these products, it is presupposed that the installer has mounted the glass units in glazing systems professionally and in accordance with specifications corresponding to a valid certification or other proof of usability from a recognized institute for the respective fire resistance class.

Any subsequent or further processing, not authorized and supervised by Vetrotech Saint-Gobain International AG (hereinafter VSGI), is expressly prohibited and will invalidate the function and usability of these products. Any warranty and/or guarantee is voided in case these products are used in a fire protection classification not covered by a VSGI declaration.

For combinations with other glass products, the corresponding valid Application Guidelines must also be followed.

TRANSPORT, STORAGE AND CONDITIONS OF USE

Transport

For transport and storage, only the racks, boxes or individual glass packaging provided by Vetrotech must be used. For other transport and storage systems, make sure that the glass is appropriately secured. In general, suitable separators or spacers (e.g., cork pads) are to be used which prevent direct contact of the glass surfaces. Paper liners are not suitable.

Storage

The glass must be transported and stored in dry conditions only. During transport, storage (intermediate or at construction site) and while installed in a non-heated unfinished building shell, a temperature above -10 ° C must be guaranteed at all times. Extreme climatic conditions, such as radiant heaters, direct sunlight, etc. as well as formation of condensation between the glasses due to strong temperature changes must be avoided.

Conditions of Use

Structural Strength

All products within the product families CONTRAFLAM, SWISSFLAM, CONTRAFLAM STRUCTURE are non-load bearing components of construction systems and not to be exposed to mechanical stress.

In case of glazing in inclined or horizontal applications, glazing with high thermal, static or dynamic loads or insulating glass units at altitudes above 700 meters above sea level, precise information on the conditions at the place of installation and the exposure of glass must be provided to VSGI for validation.

Climatic and Environmental Conditions

Interior

When installed, the usual climatic conditions of a building in use are presupposed (normal room temperature). Regular and high ambient temperatures (e.g. from heaters, radiators, direct sunlight, heat traps from louvers, blinds, curtains, awnings, etc.) must be strictly avoided.

Exterior

In exterior wall applications, insulating glass unit make-ups with suitable heat or sun protection coatings must be used to prevent excessive product temperature exposure. These design-related solutions are available for most every environmental condition and application of all CONTRAFLAM, SWISSFLAM and CONTRAFLAM STRUCTURE product variants in an IGU make-up.

Exterior applications with CONTRAFLAM STRUCTURE IGU require individual site condition assessments with respect to weather exposure, sun radiation and wind load. The local VSGI sales office will assist in the exact product make-up determination, which must be complied with to ensure product durability.

High Humidity

The use of these glazing products in rooms with regular or permanently high humidity (for example in swimming pools, laboratories, etc.) can not only lead to reactions with the glass surfaces, but also with other glazing components like gaskets and sealants used. Generally, water build-up must be avoided for glass and all other surfaces. Particularly the glazing rebates must be kept dry by ample draining or ventilation. Thermal bridges causing condensation on any surface must be avoided.

Vetrotech offers solutions and specific instructions to a variety of typical high-humidity applications and environmental conditions. In addition, for many custom applications, solutions can be adapted with a local Vetrotech Sales Office.

Please note that even if above mentioned basic rules are adhered to, all products and components are subject to accelerated aging. Any aging related product alterations or defects are the inevitable consequence of the extraordinary climatic conditions.

Surface Applied Films

Adhesive and adherent polyester/polyethylen terephthalat (PET) or polyvinyle chloride (PVC) films may be applied to the free vision area of a glass surface for decorative or informative purposes. They may have a thickness between 25 and 250 µm. It is recommended to confirm the use of such films / decals by the authority having jurisdiction.

INSTALLATION / CLEANING DURING CONSTRUCTION

Preparation

Each fire-resistant glass lite must be checked for visible defects or damage prior to installation. Damaged or faulty glasses must not be installed. Notes and instructions on stickers, including information regarding installation orientation, must be followed.

After completion in the manufacturing plant, the fire-resistant glass must not be damaged or in any way be processed without the authorization of VSGI. This includes the edge seal in particular. For CONTRAFLAM STRUCTURE the latest "Installation Guidelines and Special Instructions" apply.

The rebate space between the glass and the frame must be ventilated at all times and in accordance with the regulations and in compliance with the standard. In the case of joining or sealing the glass with non-released materials, VSGI will not assume any liability for a possible material incompatibility between edge seal or other glazing components (e.g. polycarbonate, plastic interlayers, etc.). Material compatibility must always be verified by the glazing system provider or installer.

Installation

During installation, the following pressure forces on the edge bond of CONTRAFLAM or CONTRAFLAM STRUCTURE products, which consist exclusively of thermally toughened glass panes, must not be exceeded:

- mono-structures: 200 N/cm edge length,
- Insulating glass structures: 150 N/cm edge length

For glass structures containing non-toughened glass, or for SWISSFLAM 20 N/cm edge length must not be exceeded.

For fire-resistant glass of the CONTRAFLAM STRUCTURE product family, VSGI's specific "Installation Guidelines and Special Instructions" for this product apply expressly. When installing two or more adjacent fire-resistant glass units (structural glazing), it is important to use only the sealing material and intumescent tape approved by VSGI* for gluing the joints, because of fire protection reasons and possible material interactions.

*Note: VSGI has no direct control over the glazing compounds in terms of their production, quality variations or changes in properties. Thus, all information is expressly an execution recommendation, for which no warranty or guarantee by VSGI is taken.

Job Site Cleaning

During the job site construction phase, all aggressive contamination shall be avoided. Should this happen however, the contaminants must be washed off immediately with non-aggressive agents until free from residue.

In particular, concrete or cement slurries, plasters and mortars are highly alkaline and cause glass surface etching unless they are immediately rinsed off with plenty of water. Such or dusty or grainy deposits on the glass surface must be properly removed with clean water, but never dry.

Welding work in the area of fire-resistant glass requires full surface protection against welding beads and flying sparks. To minimize contamination and damage, it is recommended to apply protective films in front of the fire-resistant glasses temporarily. Subsequent trades on the job site are to be informed about necessary protective measures.

PRODUCT CLEANING and MAINTENANCE

During the glass in use, proper cleaning at regular intervals is required. When cleaning CONTRAFLAM / SWISSFLAM / CONTRAFLAM STRUCTURE, plenty of clean water must be used to avoid any scrubbing effect on the glass surface due to dirt particles. For example, soft, clean sponges, leather, cloths or rubber wipers, which do not have any scratching or abrasive particles such as sand or mortar residues, are suitable.

The cleaning process can be supported by the use of largely neutral cleaning agents or commercial household glass cleaners. If the contaminants on the glass are grease or sealant residues, it is possible to use commercially available solvents such as ethyl alcohol (spirit) or isopropanol for the cleaning. Of all chemical cleaning agents available, alkali solutions, acids and fluoride-containing agents shall not be used. The use of sharp, sharp metallic tools, e.g. blades or knives may cause permanent surface damage (scratches). A full surface scraping by razor blade is not allowed. No kind of cleaning agent shall noticeably damage the glass surface.

For externally coated glasses and any other special glass products, the specifications and instructions in accordance with the "Leaflet for glass cleaning", issued by Bundesverband Flachglas e.V. are applicable or the glass manufacturer's specifications shall be consulted.

Nickel-Sulfide Inclusions

CONTRAFLAM contains thermally toughened safety glass, which, in individual cases, can develop spontaneous fractures caused by so-called nickel sulfide inclusions inherent to materials and production processes. Consequently, heat-soak-tested toughened safety glass should be used, also depending on the intended use or building law requirements. With a heat-soak-test, the residual risk of such breakage can be significantly reduced, but not completely eliminated either and thus spontaneous fracturing is not covered under product warranty.