

GENERAL

This document is valid for the entire range of the LUNAX Door Systems. When using these products, it is assumed the installer has mounted the door leaf / door leaves and all components in openings professionally and in accordance with published guidelines and 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 is voided in case these products are used in a fire protection classification not covered by a VSGI declaration.

TRANSPORT, STORAGE AND CONDITIONS OF USE:

Transport

For transport and storage, only the racks, boxes for individual glass lites, door leaves and hardware packaging provided by VSGI, must be used. For other transport and storage systems, make sure that the glass is appropriately secured and no damage can occur on any part, pre-installed hardware components included.

Storage

The LUNAX glass and door leaf / door leaves 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, exceeding 45°C for a long duration as well as formation of condensation between the glasses due to strong temperature changes must be avoided during transport, storage and in use.

Conditions of Use

When installed, the usual climatic conditions inside a building in use are presupposed (normal room temperature). Excessive temperatures (e.g. heaters, IR radiators, direct sunlight, heat traps from blinds, curtains, awnings, etc.) are to be avoided. LUNAX Door Systems are designed for interior use in buildings; an installation in exterior building openings is not permitted.

The use of LUNAX glazing products in rooms with regular or permanently high humidity and / or a high concentration of chlorine or similar solubles (for example in swimming pools, laboratories, etc.) can lead to reactions with the glass surface,

sealants, graphite strips and hardware components used. Generally, water build-up must be avoided for glass and all other surfaces. Particularly the glazing rebate areas must be kept dry by ample draining or ventilation for fast and complete drying of glass and all other component. Thermal bridges causing condensation on any surface must be avoided.

Please note that even if these basic rules are adhered to, the products in this special application can be subject to accelerated aging. This is not a product defect, because it is an inevitable consequence of the unusual climatic conditions.

All LUNAX Door Systems products are non-load bearing and not to be exposed to mechanical stress, incorrect or abusive handling and operation.

For suitability of intended use or application (e.g. disability access, privacy regulations, glare and lighting conditions, etc.), please verify with local regulations and/or authorities beforehand.

INSTALLATION/CLEANING DURING CONSTRUCTION

Each LUNAX door leaf, glass lite and component must be checked for visible defects or damage prior to installation. Damaged or faulty door leaves, glass or hardware components must not be installed. The appropriate VETROTECH Installation Guideline for the LUNAX door system to be installed must be strictly followed. For missing instructions, please contact your installer or a VETROTECH sales office for information.

After completion in the manufacturing plant, LUNAX Door System must not be damaged or in any way be processed without the authorization of VSGI. This includes the edge seal of each glass pane and all provided hardware in particular, whether pre-installed or delivered loose. For all LUNAX Door Systems the current "Installation Guidelines" for each type opening or product solution apply and must be followed. Likewise for all instructions provided for field installation components, e.g. optional hardware accessories.

When installing the LUNAX Door System, it is important to use the components and materials delivered and approved by VSGI only to ensure proper fire protection performance and material compatibilities. Material compatibility must always be verified by VSGI.

During intermediate setting and storage of the glass prior to mounting, only resting on its long/horizontal edges and evenly back supported must be ensured (no unsupported leaning against walls, etc. for longer than 30 minutes). Use only suitable bottom supports preventing any and all damage to the edges of the glass and hardware attached.

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. NOTE: Do not expose adhesives, gaskets and other hardware components to excessive water and for an extended amount of time!

Welding, sanding and grinding work in the area of the LUNAX glass components requires full surface protection against welding beads and flying sparks. To minimize contamination and damage, it is recommended to set up shields or apply protective films on the glass surface temporarily. Note: only approved films leaving no residual adhesive are permitted. Subsequent trades on the job site are to be informed about necessary protective measures.

Final cleaning is recommended to be conducted by a specialized cleaning company.

PRODUCT USE, CARE & MAINTENANCE

LUNAX Door Systems are subject to regular maintenance in accordance with legal and/or manufacturer's requirements. It is assumed that complete maintenance documentation can be provided throughout the entire warranty period, and that the door closers and other hardware are set up per manufacturer's documentation avoiding damaging effects on the glass products and all other components. NOTE: in some countries, statutory regulations may require scheduled functionality checks of fire-rated door systems, including archiving of recorded checks and maintenance activities.

Product Use

Incorrect use of LUNAX door systems must be avoided at all times, such as:

- blocking the door(s) with heavy objects, wedges, etc.
- use of non-certified hardware or modifications to hardware provided
- attachment of heavy loads on door leaf

The risk of injury or damage of LUNAX door systems during normal operation must be considered by the end user at all times, such as, but not limited to:

- noticeability of glass door leaf for occupants in closed or open position, preventing accidental human impact
- pinching of fingers between door leaf and frame/opening
- slamming or other extreme forces on door leaf and/or hardware
- walls or obstructive objects in travel of door leaf
- unintended door operation by change of pressure in the building (draft, elevator shafts, etc.)

Glass Cleaning

During the glass in use, proper cleaning at regular intervals is required. When cleaning LUNAX Door Systems, 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. NOTE: Do not expose adhesives, gaskets and other hardware components to excessive water and for an extended amount of time!

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 other glue residues, it is possible to use commercially available solvents only in the areas affected. NOTE: Ethyl alcohol (spirit), isopropanol and chemical cleaning agents, such as alkali solutions, acids and fluoride-containing agents shall NOT be used for the cleaning.

The use of 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 or means shall noticeably damage the glass surface or any other parts of the system (seals, hardware, etc.).

SYSTEM COMPONENTS / HARDWARE

Intumescent fire- and smoke-seals are critical parts of fire-rated LUNAX Door Systems' performance. If seals or any of the other hardware components have been removed, badly fitted or are damaged, they must be replaced with the same type material originally supplied. Please contact your installer or a VETROTECH sales office for information.

For necessary or required checks and maintenance of LUNAX Door Systems hardware (e.g. door closers, locks, hold-open devices, etc.), please refer to each of the component's instructions and guidelines or contact the local VETROTECH sales office.

Regular Maintenance

The frequency of door functionality tests and maintenance may vary depending on local regulations, frequency of use / type of occupancy. The following instructions are for reference only. Please verify potential regulatory requirements with local authorities.

Functionality Test

As a proper function of the door closer and other hardware components has to be guaranteed at all times, scheduled checks must be carried out as follows:

- Inspect glass and hardware for any damages, excessive wear and tear, unusual sounds or friction
- Check for any obstacles, rubbing, twisted intumescent seals or smoke seals, etc. possibly preventing a free movement. Seals must be properly positioned and fully attached
- Verify accurate gap dimensions as per images below and adjust if outside tolerance
- Open each door leaf completely and release it until closed. The door is considered closed, when positioned in the center of the intumescent strip, located in the perimeter supporting structure. Repeat for each direction of swing, if applicable
- Open each door leaf approx. 5°-15° and release it. The door must fully close (and latch, if applicable)
- If applicable, verify door locks or latches properly. For electrical locks verify the functionality in powered and non-powered operation modes

- Door closing speed from fully open (90° to 180°) is to be approx. 10 seconds. Ensure the door does not slam. Adjust speed as necessary (refer to door closer manual)
- Check proper function of electro-magnetic hold-open device. Hold-open devices are connected to the fire detection and alarm system and designed to release automatically in case of fire, by power being disconnected. Simulate lack of power to verify proper function

Any and all parts defective, dislocated, worn, etc. need immediate adjustment, repair or replacement by a certified / authorized representative to ensure continued proper functionality of fire-resistance and general operation of Lunax Door Systems.

Gap Control

