

**aliplast**  
aluminium systems

# USER & MAINTENANCE

MANUAL

FOR ALUMINIUM  
WINDOWS AND DOORS

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# USER & MAINTENANCE MANUAL

For aluminium windows and doors



**aliplast**  
aluminium systems

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# TABLE OF CONTENTS

1. GENERAL INFORMATION .....	4
2. INCORRECT USAGE .....	5
2.1. Incorrect USE OF WINDOWS AND DOORS .....	5
2.2. Incorrect USE OF HANDLES .....	7
2.3. Incorrect USE OF LOCKS .....	8
3. WINDOWS MANUAL .....	9
3.1. Windows opening methods .....	9
3.1.1. Inswing turn-only windows .....	9
3.1.2. Inswing tilt-only windows .....	9
3.1.3. Turn-and-tilt windows .....	10
3.1.4. Tilt-and-turn windows .....	10
3.1.5. Double casement window with moving transom .....	10
3.1.6. Outswing turn-only window .....	11
3.1.7. Outswing top-hung window .....	11
3.1.8. Outswing top-hung windows with a scissor mechanism .....	12
3.1.9. Outswing parallel opening window windows with a scissor mechanism .....	12
3.1.10. Pivot windows with vertical axis of rotation .....	13
3.1.11. Pivot windows with horizontal axis of rotation .....	13
3.1.12. Vertical sliding windows .....	13
3.1.13. PSK Windows .....	14
3.1.14. Roof windows .....	14
3.2. Window accessories .....	15
3.2.1. Handles .....	15
3.2.2. Opening limiter .....	16
3.2.3. Microventilation .....	16
4. DOORS MANUAL .....	17
4.1. Doors opening methods .....	17
4.1.1. Single doors .....	17
4.1.2. Double doors .....	17
4.1.3. Pivot doors .....	18
4.1.4. HS - Sliding doors .....	18
4.1.5. Lift-and-side doors .....	19
4.1.6. Folding doors .....	19
4.1.7. Tilt-and-slide doors .....	20
4.2. Door accessories .....	20
4.2.1. Closing and opening of single doors .....	20
4.2.2. Closing and opening of double doors - passive leaf .....	21
4.2.3. Closing and opening of anti-panic and emergency exit doors .....	22
4.2.4. Closing and opening of tilt-and-slide doors .....	23
4.2.5. Door closers .....	23

5. CLEANING AND MAINTENANCE .....	24
5.1. General information on cleaning and maintenance .....	24
5.2. Cleaning and maintenance frequency .....	24
5.3. General cleaning and maintenance .....	25
5.3.1. Windows cleaning and maintenance .....	26
5.3.2. Doors cleaning and maintenance .....	27
5.3.3. Cleaning and maintenance of hardware and accessories .....	29
5.4. Maintenance and cleaning of powder-coated aluminium components .....	30
6. NOTES .....	36

## 1. GENERAL INFORMATION

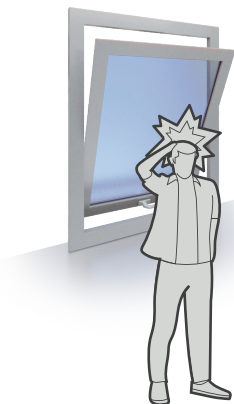
The manufacturer of aluminium profiles and aluminium systems for building industry – Aliplast Sp. z o.o. – provides you with this document including information that will help you become familiar with our systems, safely use of the finished product, maintenance of aluminium components as well as other important aspects, aimed at offering the highest product quality based on modern technical solutions.

This document does not constitute detailed technical documentation concerning the manufacturing procedure of individual systems; all structures should be made based on the building practice and guidelines contained in catalogues and other related technical documentation available to customers of ALIPLAST SP. Z O.O.

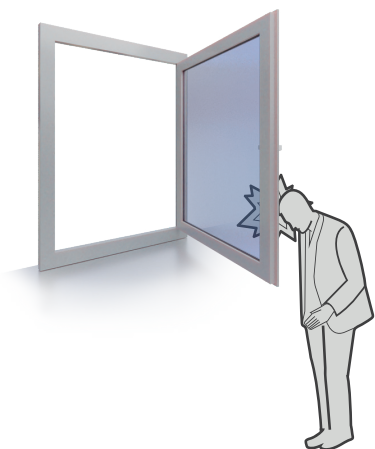
The document does not release the target reader and the user of individual products from the obligations imposed by the relevant provisions of the applicable law. Failure to comply with the recommendations and instructions contained in this manual by the target reader or the user releases the manufacturer from all obligations and guarantees, the terms of which are contained in a separate document.

## 2. INCORRECT USAGE

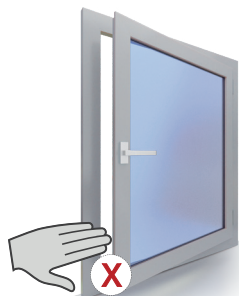
### 2.1. Incorrect USE OF WINDOWS AND DOORS



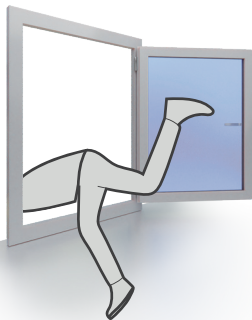
Risk of injury due to sash impact.



Impact by an opening sash.



Risk of injury if the hand is inserted between the window sash or door leaf and the frame.



Risk of falling out when the window is open.



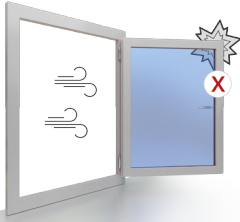
Risk due to falling objects and/or similar injuries, e.g. caused by draught.



Loading the sashes can cause damage, deformation or destruction of individual components.



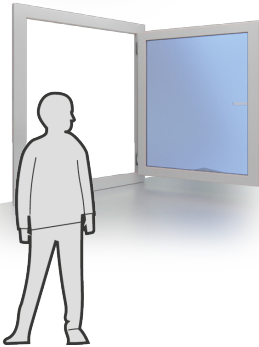
In case of double casement window, follow the sequence of opening/closing. First open the active sash/leaf (except for emergency exit doors) in order to avoid damaging the locking elements or the frame.



Don't leave the window opened when the wind is strong. Sashes hitting the window recess uncontrollably can cause damage to the frame, hardware or the recess. Recommendation: use an opening limiter or stopper.

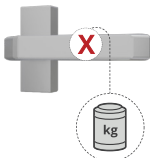


There must be no objects between the leaf and the frame that can directly interfere with the proper functioning and operation of the product.

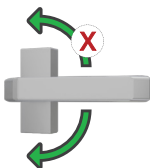


If the window can be accessed by children or people with mental disorders, mount (for example) a lockable handle or an opening lock.

## 2.2. Incorrect USE OF HANDLES

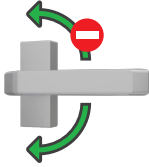


Loading the handle can damage the locking mechanism or the securing mechanism; this mechanism guarantees correct use of the handle by preventing improper movements.



Manoeuvre the handles in accordance with the direction indicated in the manual (hardware manufacturer's instructions).





This mechanism guarantees correct use of the handle by preventing incorrect movements. The mechanism prevents the handle from being turned to another position if the window sash is not completely closed.

### 2.3. Incorrect USE OF LOCKS



Do not drill in hardware after installing the lock: aluminium chips can jamm the lock.



Do not use force if the key cannot be turned: this may cause the key to break. If this is the case, call the appropriate service.



Do not close the door if the lock bolt has been locked already: this will damage the lock and the frame.

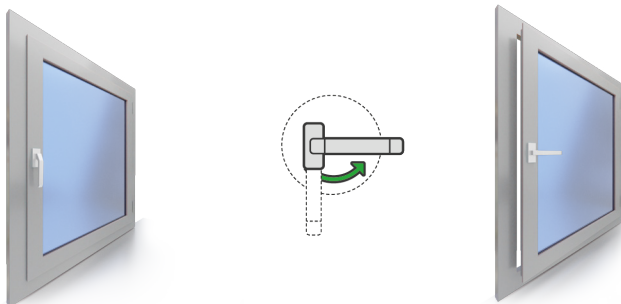


In the case of electrical locks, follow the operating and maintenance manual provided by the lock manufacturer.

## 3. WINDOWS MANUAL

### 3.1. Window type

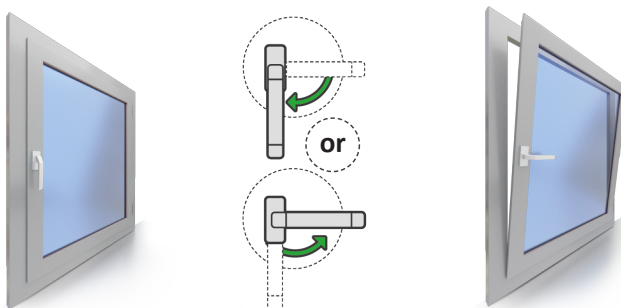
#### 3.1.1. Inswing turn-only windows



Use the handle to open the window inwards. Turn the handle 90° and pull inwards.

To prevent the window from closing uncontrollably, they are secured in the tilting position with tilt stops (tilt stops that can be opened for cleaning).

#### 3.1.2. Inswing tilt-only windows

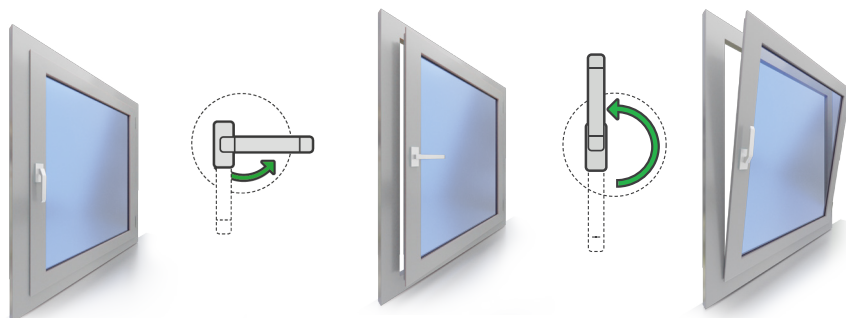


Depending on the position of the handle (on the side or top of the sash)

Use the handle to tilt the window inwards. Turn the handle 90° and pull inwards.

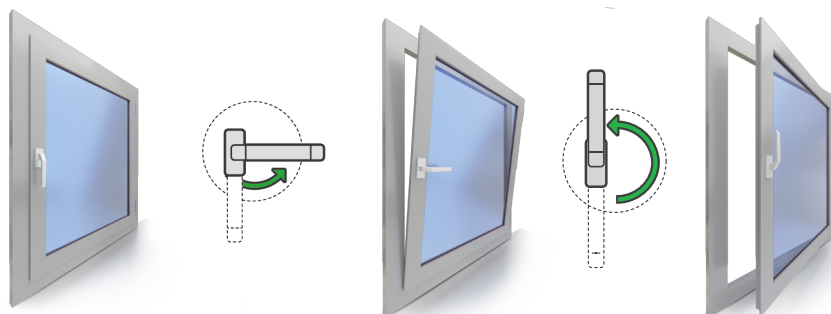
To prevent the window from closing uncontrollably, they are secured in the tilting position with tilt stops (tilt stops that can be opened for cleaning).

### 3.1.3. Turn-and-tilt windows



By turning the handle 90° in the turn-and-tilt window, the sash is turned inwards. By turning the handle 180°, the sash can be tilted inwards to the ventilation position.

### 3.1.4. Tilt-and-turn windows

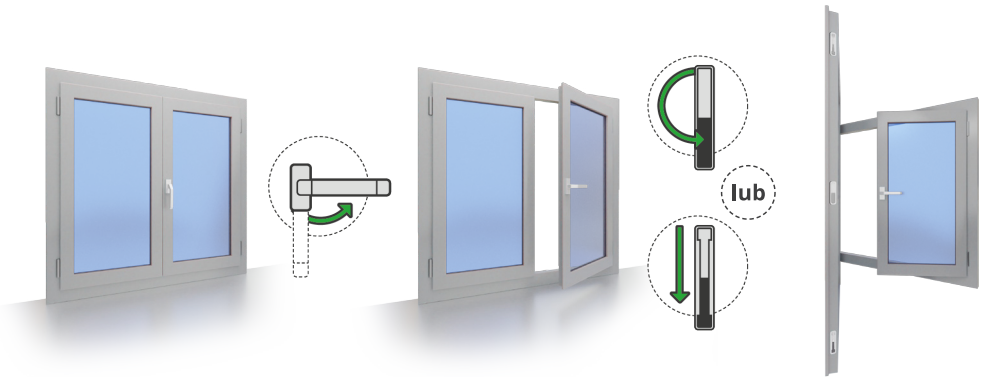


By turning the handle 90° in the tilt-and-turn , the sash is tilted to the ventilation position. By turning the handle 180°, the sash can be turned inwards.

### 3.1.5. Double casement window with moving transom

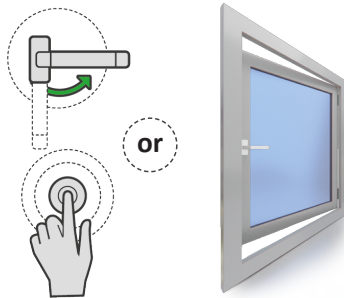


A double casement window consists of two sashes that open in a specific order. The handle is located on the active sash. The active sash can serve as a turn-only, turn-and-tilt or tilt-and-turn window. The operation of these windows is described in the previous sections.



To open the passive sash, first fully open the active sash inwards. The passive sash is equipped with locking bars or a central locking mechanism. After unlocking the locking bars or the central locking mechanism, the passive sash can be opened in the turn-only position. To close the window, follow these steps in reverse order.

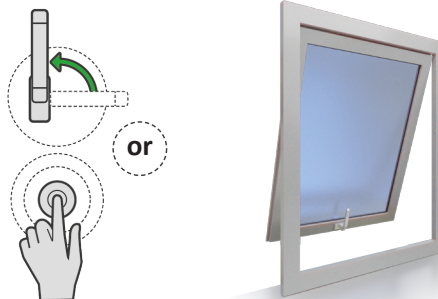
### 3.1.6. Outswing turn-only window



Turn the handle 90° or use the button to open the window outwards. It is recommended to use an opening stop to adjust the degree of opening.

It is possible to use an electric actuator for opening and closing. Follow the recommendations provided by the drive manufacturer.

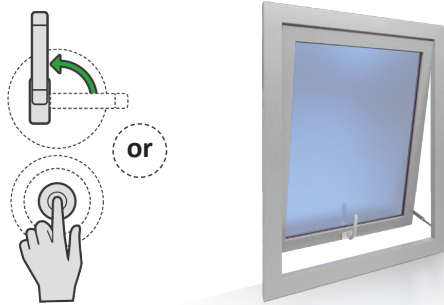
### 3.1.7. Outswing top-hung window



Turn the handle 90° or use the button to open the window outwards. The sash is held in the open position by an opening stop.

It is possible to use an electric actuator for opening and closing. Follow the recommendations provided by the drive manufacturer.

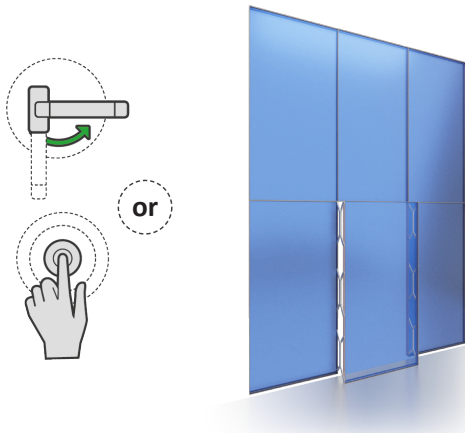
### 3.1.8. Outswing top-hung windows with a scissor mechanism



Turn the handle 90° or use the button to open the window outwards. The opening angle is limited. It is possible to use an additional opening angle stop.

It is possible to use an electric actuator for opening and closing. Follow the recommendations provided by the drive manufacturer.

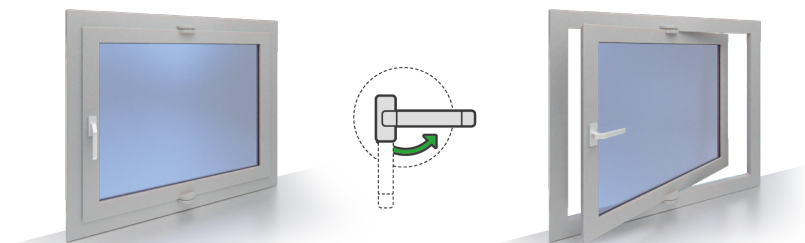
### 3.1.9. Parallel opening windows with a scissor mechanism



Turn the handle 90° or use the button to open the window outwards. The sash is held in the open position by scissors arranged around the perimeter of the window.

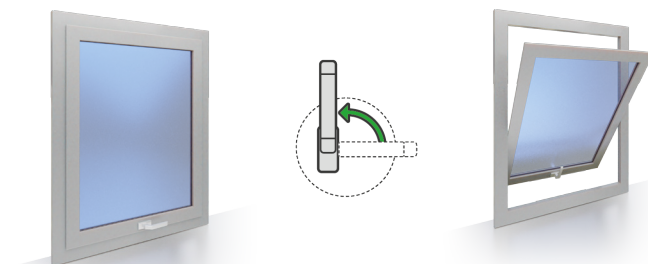
It is possible to use an electric actuator for opening and closing. Follow the recommendations provided by the drive manufacturer.

### 3.1.10. PIVOT windows with vertical axis of rotation



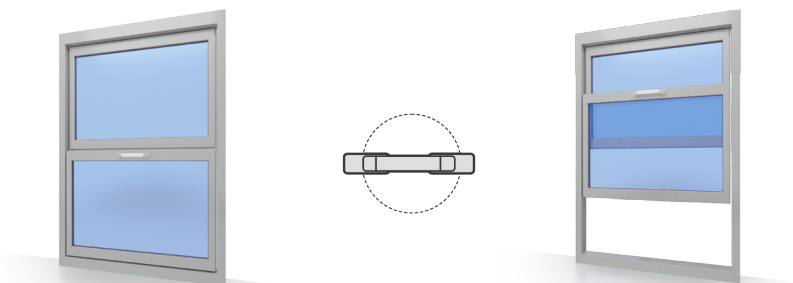
Turn the handle 90° to rotate the sash around the vertical axis of rotation.

### 3.1.11. PIVOT windows with horizontal axis of rotation



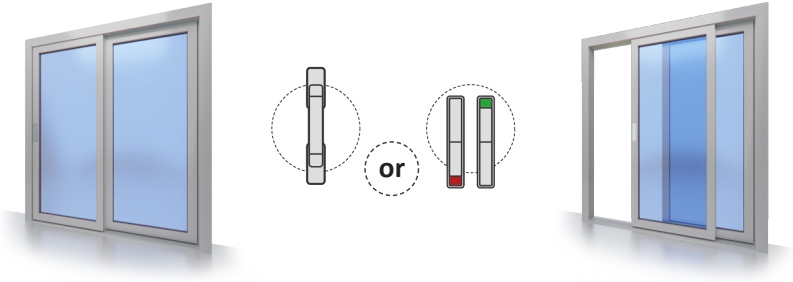
Turn the handle 90° to rotate the sash around the horizontal axis of rotation.

### 3.1.12. Vertical sliding windows



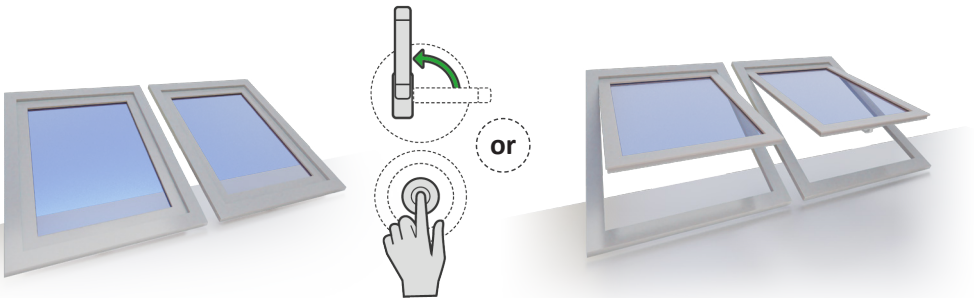
Use the handle to unlock the window to move the window upright. Additional tilting function, unlocking the two locking points allows the sliding windows to be tilted inwards, tilting is limited by the opening stop.

### 3.1.13. PSK windows



- a. Using the integrated handle: the sliding window is unlocked by moving the mechanism inside the handle. Unlocked position of the handle is indicated by a green mark on the handle mechanism. The locked position is indicated by a red mark.
- b. Using the integrated handgrip: The green colour indicated that the door is unlocked. To lock the window, simply reverse the order, you will see the red colour.

### 3.1.14. Roof windows



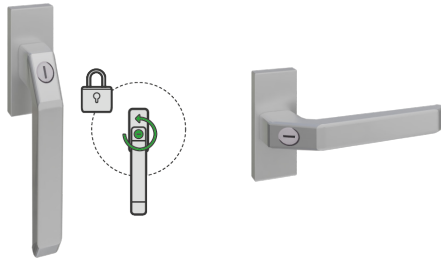
Turn the handle 90° or use the button to open the window outwards. The opening angle is limited. It is possible to use an additional opening angle stop.

It is possible to use an electric actuator for opening and closing. Follow the recommendations provided by the drive manufacturer.

## 3.2. Window accessories

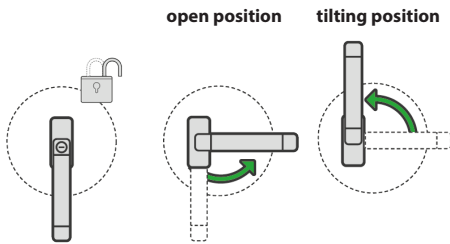
### 3.2.1. Handles

#### a. Turning



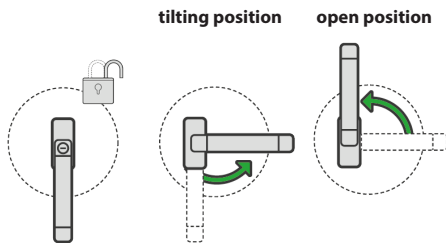
Turn the window handle 90° to obtain the open position. If the handle is equipped with a lock cylinder, make sure that the cylinder is unlocked before turning the handle.

#### b. Turning before tilting



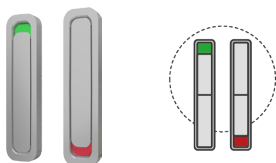
Turn the window handle 90° to obtain the open position. Turn the handle 180° to obtain the tilting position. If the handle is equipped with a lock cylinder, make sure that the cylinder is unlocked before turning the handle.

#### c. Tilting before turning



Turn the window handle 90° to obtain the tilting position. Turn the handle 180° to obtain the open position. If the handle is equipped with a lock cylinder, make sure that the cylinder is unlocked (as shown) before using the handle.

#### d. Integrated handgrip



The green colour indicated that the door is unlocked. To lock the window, simply reverse the order, you will see the red colour.



### 3.2.2. Opening limiter

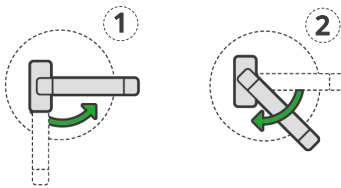


The opening limiter can be used to determine the opening distance of the window when opening inwards or outwards up to 90°. It is possible to unlock the opening stop to open the window for cleaning or maintenance.

#### **WARNING!**

For outswing windows, it is recommended to limit the opening to 100 mm.

### 3.2.3. Microventilation

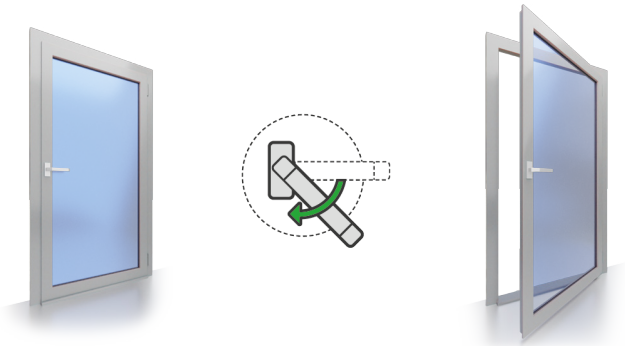


Inswing windows can be equipped with hardware elements used to obtain a ventilation gap. The ventilation micro-gap is obtained by setting the handle to the open position, slightly turning the window (+/- 5 mm), and then turning the handle down 45°. The window is locked in a fixed position with a small gap of +/- 5 mm.

## 4. DOORS MANUAL

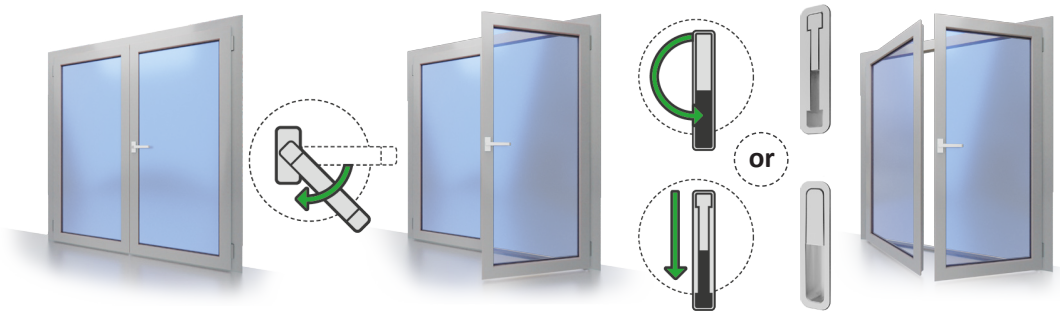
### 4.1. Doors opening methods

#### 4.1.1. Single doors



To open a single door, press the handle downwards by pulling the door (inswing opening) or pushing the door (outswing opening). To close the door, leave the handle in its original horizontal position and push or pull it until the door is closed.

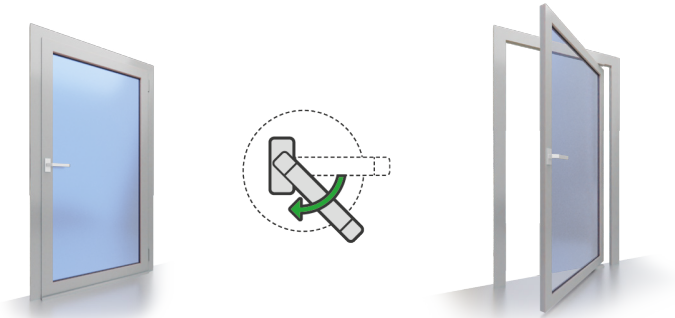
#### 4.1.2. Double doors



Double door consists of two door leaves with a specific opening sequence. The active leaf is equipped with a handle, and the passive leaf is equipped with lower and upper locks or a central lock.

To open the passive leaf, first open the active leaf as described in the previous chapter. Next, unlock the lower and upper locks or the central lock and push the passive leaf. To close the door, simply follow the steps in reverse order.

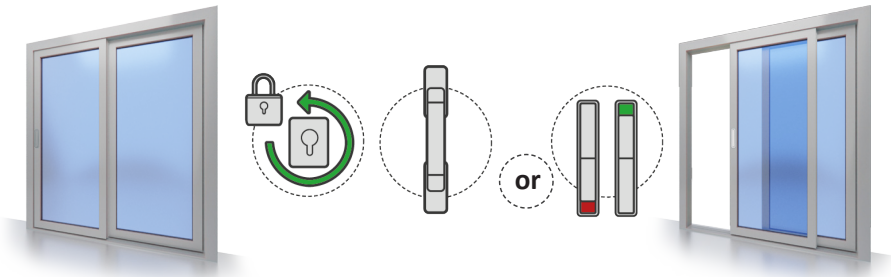
### 4.1.3. Pivot doors



PIVOT door is equipped with either a standard handle or a door handgrip. It is possible to revolve the leaf by pressing the handle.

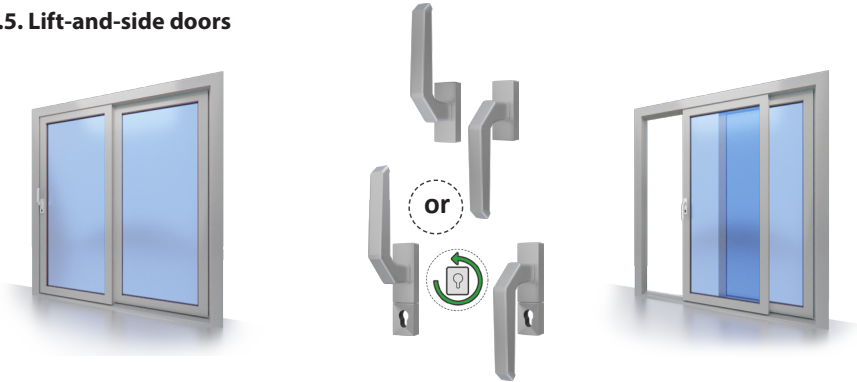
Handle: to open the leaf, press the handle down and then pull or push the leaf.  
Fixed handgrip: grab the handgrip and push or pull the leaf.

### 4.1.4. Sliding doors



- Sliding elements with fixed handgrip: locked and unlocked using the cylinder key.
- Using the integrated handle: the sliding window is unlocked by moving the mechanism inside the handle. The unlocked position of the handle is indicated by a green mark on the handle mechanism. The locked position is indicated by a red mark.
- Integrated handgrip: the sliding door is unlocked by sliding the mechanism inside the handgrip. You can see a green mark when the door is open. To lock the door, follow the steps in reverse order. You can see a red mark when the door is closed.

#### 4.1.5. Lift-and-side doors

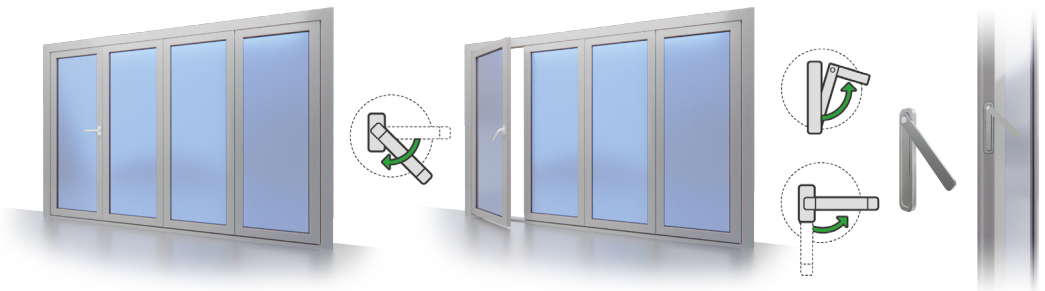


After turning the door handle 180° to the sliding position, the leaf will be lifted. To close the leaf, slide it to the closing position and lower it again by turning the handle 180° upwards.

If the sliding door is equipped with a handle with a key, turn the key before turning the handle.

The hardware allows locking the leaf in the ventilation position. Move the leaf away from the frame approx. 12 mm and then turn the handle 180° upwards to secure the building against unauthorised access.

#### 4.1.6. Folding doors

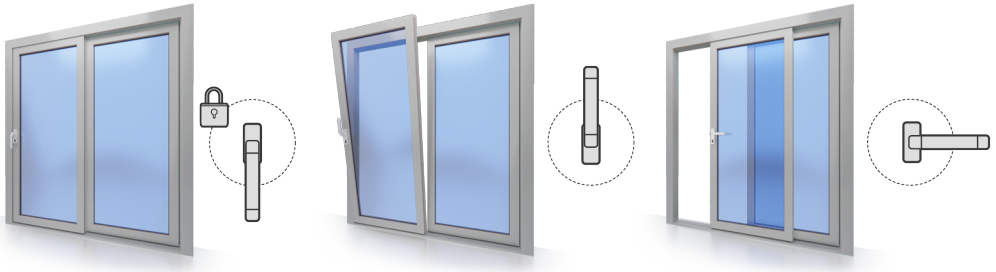


To open the folding element completely, use the handle to unlock the active leaf, position the leaf at an angle of 90° relative to the rail.

Next, unlock the passive leaf, the leaf must be positioned at an angle of 90° relative to the rail, then the second handgrip can be opened. When the second handgrip is open, the second leaf can be opened by pulling the handle (inswing opening) or pushing the handle (outswing opening). These also must be positioned at an angle of 90° relative to the rail. This operation is repeated successively depending on the number of leaves.

To close the accordion door, push the leaf (inswing opening) or pull it (outswing opening) until the leaves are successively positioned above the rail and follow the above steps in reverse order.

### 4.1.7. Tilt-and-side doors



All functions are controlled with a handle: it unlocks the central lock and pushes the leaf away; it unlocks the tilt position; it allows the leaf to be slid and moved to the limit position; it presses the leaf and locks it at the same time.

## 4.2. Door accessories

### 4.2.1. Closing and opening of single doors - active leaf

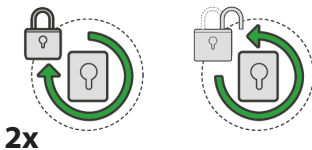
#### a. Handle



Pressing the handle releases the lip lock, which allows the door to be opened by pushing/pulling the handle.

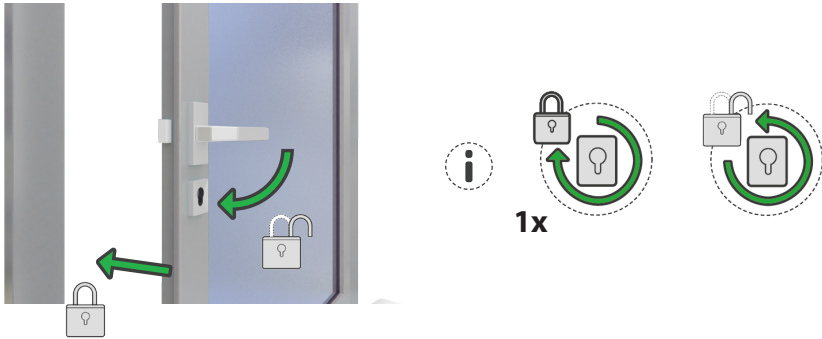
Important: the lock cylinder must be in the open position.

#### b. Cylinder-controlled lock



When the door is the closed position, give the key two full turns to lock and secure the door. To open the door, give the key two full turns counterclockwise and press the handle to open the door.

### c. Automatic lock



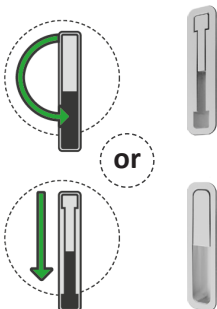
The automatic locking system allows the door to be locked without manipulation by the user. When the door is in the closed position, the locking system starts automatically. To secure the door, give the key one turn clockwise. To unlock the door, give the key one turn counterclockwise and press the handle.

### d. Electric lock



The locking mechanism with an electric drive is activated by pressing the button. When the door is in the closed position, pressing bolts/unbolts the lock.

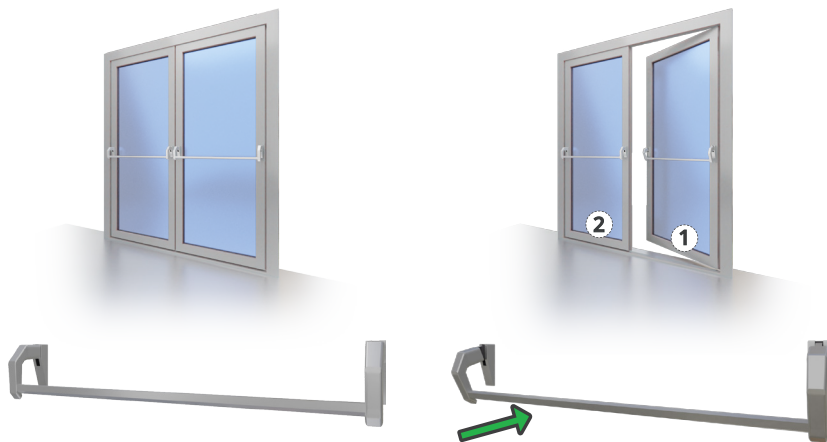
### 4.2.2. Closing and opening of double doors – passive leaf



To open the passive leaf, first open the active leaf as described in the previous chapters. Next, unlock the lower and upper locks or the central lock and push the passive leaf. To close the door, simply follow the steps in reverse order.

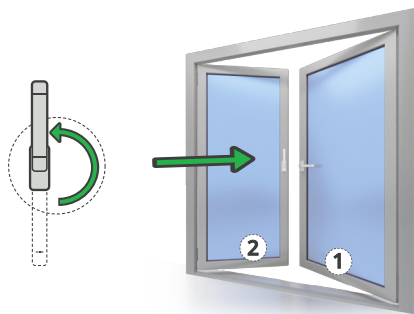
### 4.2.3. Closing and opening of anti-panic and emergency exit doors

#### a. Anti-panic doors



To open the anti-panic door, press the anti-panic lever as shown in the figures.

#### b. Emergency exit doors

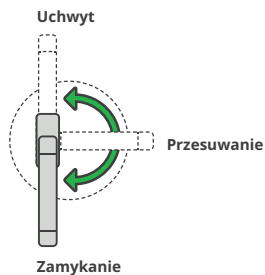


The active leaf acts as a regular door as described in the previous chapters. To open the passive leaf, turn the passive leaf handle 180° upwards.

#### **NOTE!**

Detailed guidelines for specific opening and operation possibilities can be found in ALIPLAST system catalogues.

#### 4.2.4. Closing and opening of tilt-and-slide doors



All functions are controlled with a handle: it unlocks the central lock and pushes the leaf away; it unlocks the tilt position; it allows the leaf to be slid and moved to the limit position; it presses the leaf and locks it at the same time.

#### 4.2.5. Door closers



The door closer automatically closes the door leaf that has been opened.



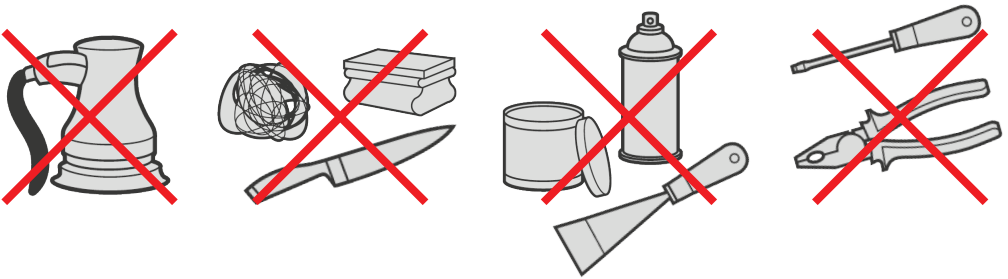
## 5. CLEANING AND MAINTENANCE

### 5.1. General information on cleaning and maintenance

Regular cleaning and maintenance of windows and doors is important to ensure their proper functioning and service life. The aluminium structure requires regular maintenance with non-aggressive cleaning agents such as lukewarm water with a non-aggressive detergent of neutral pH (6-8), without vinegar and ammonia. To ensure correct functioning of the window, observe the maximum dimensions and masses as recommended in our catalogues.

**Do not use the following materials to clean windows and doors:**

- Hard materials such as knives, steel wool, metal scrapers, abrasive paper, etc.
- Aggressive or corrosive cleaning agents should be avoided as they may cause irreparable damage to window and door surfaces. A dedicated product range should be used instead.



### 5.2. Cleaning and maintenance frequency

Regular monitoring of the functioning of components is very important and has a fundamental impact on the proper functioning. The time interval between these checks depends on installation conditions and the frequency of use of windows or doors.

Windows and doors should be maintained regularly to extend their service life and ensure their functionality and quality.

Maintenance frequency for profiles and metal components in non-corrosive atmospheres and provided that aluminium structures are exposed to rain: twice a year. In all other cases: at least four times a year.

If the structures are erected in an aggressive, corrosive environment or exposed to other risk factors (e.g. reduced precipitation), cleaning should be more frequent. The end customer is responsible for determining this frequency. Examples of aggressive environments for erected structures:

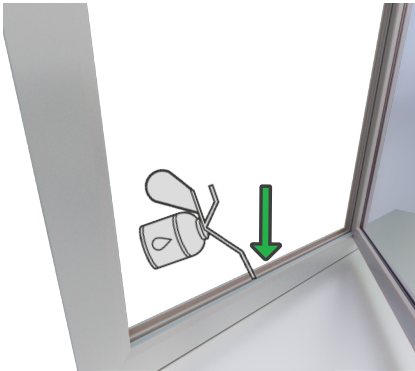
- in a highly industrialised zone, in particular in areas with high emissions of chemicals, fluorides, gases and ore materials
- coastal areas (< 10 km from the sea) or close to estuaries of large rivers (< 5 km)
- above the water table (exposure to condensation)
- polluted urban areas (with high concentrations of exhaust gas, gases)
- areas near transport interchanges (motorways, railways, airports)
- highly aggressive environment (e.g. swimming pools, laboratories, water treatment plants, animal pollution, etc.)

**WARNING!**

Special maintenance is required for fire-rated doors. Detailed guidelines can be found in individual system catalogues

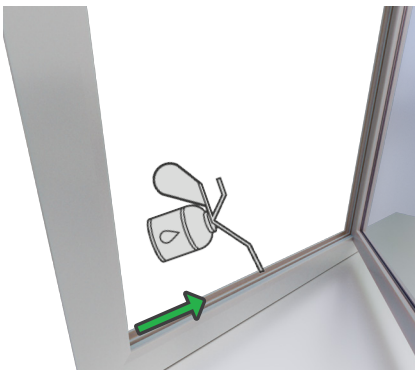
### 5.3. General cleaning and maintenance

MAINTENANCE OF WEEP CHAMBERS:



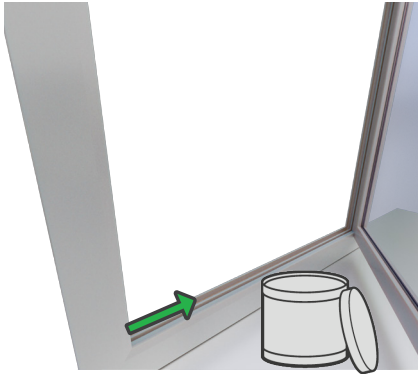
Clean the space between the frame and the opening component every 6 months. If necessary, clean weep holes of accumulated dirt.

MAINTENANCE OF BOTTOM FRAMES IN SLIDING AND LIFT-AND-SIDE COMPONENTS:



Dirt and sand can accumulate in the lower profile of the sliding/folding door. Clean the profile gutters monthly. If necessary, clean weep holes of accumulated dirt. Remove dust, dirt, grease and graphite from the rail with a cloth once a year.

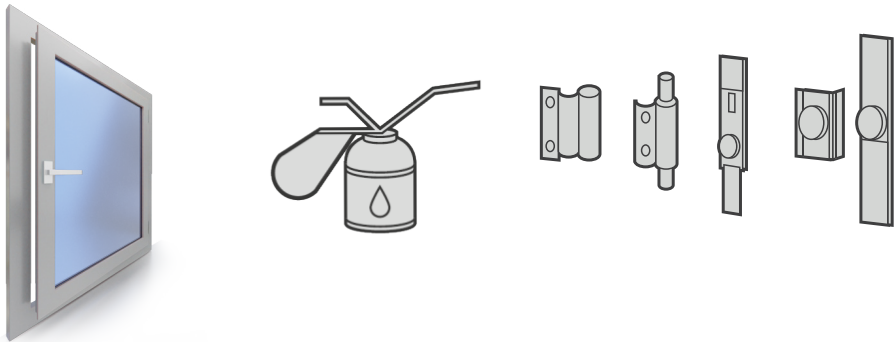
## MAINTENANCE OF GASKETS:



Once a year, apply talc or liquid silicone lubricant (using a cloth) to gaskets (EPDM) to prevent cracking and deposits.

### 5.3.1. Window cleaning and maintenance

#### WINDOW:

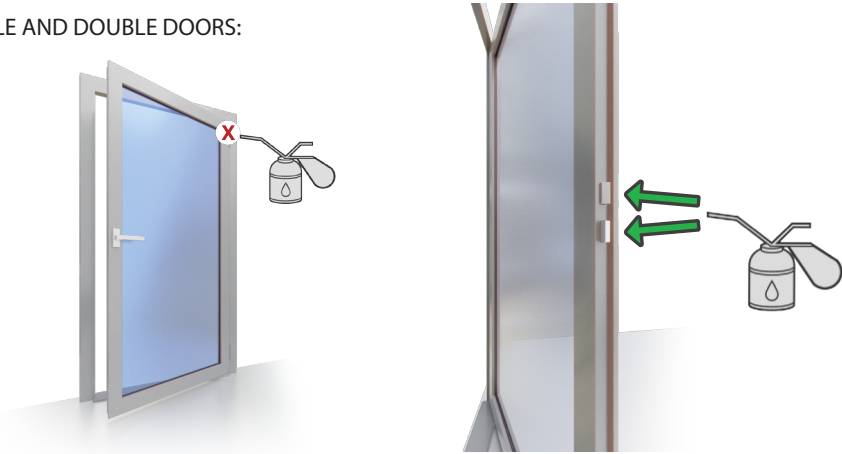


The following maintenance operations must be carried out regularly:

- Clean the mechanism and remove any dirt. Use a soft cloth and mild cleaning materials with neutral pH, after dilution.
- Check all components (and their mounting) that are important for safety (hinges, scissor mechanisms). In particular, the hinges must be checked for damage and/or deformation due to sudden impact.
- Lubricate moving parts and locking points according to the diagram (use neutral greases). If necessary, adjust the mechanism and replace worn parts to restore proper functioning of the window sash. This operation must be carried out by qualified service personnel.
- If necessary, carry out all operations related to the mechanism and replace worn components in order to restore proper functioning of the window sash. This operation must be carried out by qualified service personnel.

### 5.3.2. Door cleaning and maintenance

SINGLE AND DOUBLE DOORS:

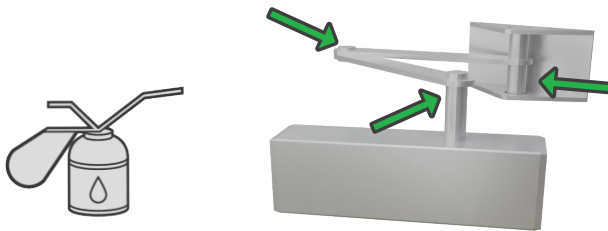


Safety hardware must be checked at least once a year for wear and proper fit. Depending on the requirements, fixing screws must be tightened. Damaged or worn parts should be replaced with genuine parts by an authorised specialist.

All moving parts and locking parts must be lubricated and checked for proper functioning at regular intervals. The lock cylinder can be maintained using graphite powder.

Hinges are maintenance-free and need no lubrication.

DOOR CLOSERS:



The safety components of the door closers must be checked regularly to make sure that they are correctly installed. Fixing screws must be tightened and any damaged components must be replaced.

In addition, the following maintenance works must be carried out at least once a year (depending on the type of leaf door and its applications):

- All moving parts of the sliding arm must be lubricated.
- The door must be checked for smooth operation.
- For door closers with special functions (systems that lock the open position), the legal inspection, monitoring and maintenance must be observed.

- Door closers and/or damaged parts must be replaced immediately if their proper functioning is no longer guaranteed.
- Closing settings (e.g. closing speed) must be checked.

Only cleaning agents containing no corrosive or harmful components should be used.

#### SLIDING DOORS:



All safety aspects of hardware, more specifically fastenings (locks, locking components, strikers and door handles) should be inspected regularly. All adjustments of hardware, especially strikers and trolleys, replacement of parts as well as assembly and disassembly of sashes should be carried out by a specialist.

Follow these instructions:

- Check the operation of hardware components.
- The door must be checked for smooth operation.
- All dirt and soiling must be removed from the components as this may affect the smooth operation of the system.
- Clean the mechanism and remove traces of dirt. Use a soft cloth and mild cleaning materials with neutral pH.
- After cleaning the surface of hardware, it should be protected with silicone and non-corrosive oil (i.e. not acidic type).

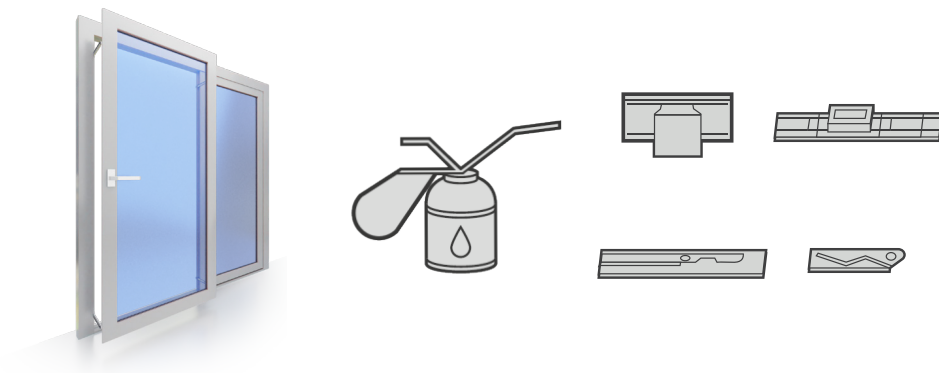
#### LIFT-AND-SIDE DOORS:



To ensure smooth and trouble-free operation, carry out the following maintenance operations at least once a year:

- Re-lubricate or oil all closing components.
- Use only clean and resin-free grease or oil.
- After cleaning the surface of hardware, it should be protected with silicone and non-corrosive oil (i.e. not acidic type).

TILT-AND-SIDE DOORS:



The operations indicated below must be carried out once a year.

- Clean the mechanism and remove any dirt. Use a soft cloth and mild cleaning materials with neutral pH, after dilution.
- After cleaning the surface of hardware, it should be protected with silicone and non-corrosive oil (i.e. not acidic type).

### 5.3.3. Cleaning and maintenance of hardware and accessories

Dust, grease and graphite must be removed from the following areas once a year\*.

- Window hardware
- Friction hinges
- Moving parts of handles
- Locks and cylinders, using graphite pipette and graphite powder
- Opening restrictor of sliding components

Clean hardware only with a soft cloth and mild cleaning agents with neutral pH.

\* Frequency depends on the type of opening type and ambient conditions.

#### NOTE!

Avoid silicone greases. Use a dry cloth and suitable oil to protect the surface and prevent dust accumulation on hardware parts.

Do not lubricate plastic guide strips or door hinges.

Do not use aggressive acidic cleaning materials or abrasive agents. This can cause damage to the hardware.

## 5.4. Maintenance and cleaning of powder-coated aluminium components

### Storage

Aluminium sections and the resulting finished products should be stored in dry rooms, in a manner that provides protection against mechanical damage and destruction of decorative and protective coatings. Protective coatings, including protective tapes and stretch foil protecting the sections only during transport, must be removed immediately after receiving the products. Sections wrapped in stretch foil should be stored under appropriate conditions so that they are not exposed to direct weather conditions (e.g. precipitation, dew, sunlight). Failure to meet the above conditions may result in the release of the adhesive substance from the foil, causing local brightening on the surface of the sections, which are not covered by the warranty.

### Transport, storage and installation

The place of final acceptance of powder-coated architectural components is the construction site. Therefore, take into account the possibility of damage to the coating during transport and storage as well as installation.

The profiles and finished products manufactured using such profiles should be transported in covered, dry and clean means of transport equipped with appropriate suspension. During transport, the loads must be protected against damage and harmful effects of weather conditions.

During storage, painted aluminium products should be protected from atmospheric factors, and therefore stored without direct exposure to sunlight, rain and other weather conditions (storage in sheltered areas).

On site and during installation, painted aluminium components should be protected against damage caused by abrasive and structural materials used in construction, in particular paints, mortars, chemical cleaning agents, etc.

Powder coatings are not resistant to mechanical damage caused by sharp tools and abrasive materials. They are sensitive, in particular, to organic thinners, concentrated alcohols, acids, bases and compounds of petroleum derivatives.

It is essential to ensure proper packaging of the pieces (wrapping in adhesive foils) as well as their attachment during transport to avoid defects of the applied coating. Storage under inappropriate conditions may lead to in condensation of moisture between the coating and the packaging film, resulting in milky white spots on the coating. These spots can only be removed by reheating the coating in the furnace.

Bending of a piece after coating application must be preceded by tests confirming the tightness of the applied coating. Even small cracks in the powder coating can lead to visible scratches and the formation of corrosion centres.

Sealing compounds and other auxiliary materials such as glazing putties, lubricants and coolants used for cutting and drilling, adhesives, joint mortars, adhesive tapes, etc. that come in contact with the coated surfaces must have **neutral pH** and contain no substances harmful to the applied paint. The influence of the sun intensifies the aggressiveness of chemicals, and therefore the above materials must undergo a suitability test for a given coating before use.

Leaving protective tapes on the powder coating surface for too long, especially during exposure to sunlight and high ambient temperature can cause a chemical reaction leading to the fusion of the film and the powder coating. As a result of this reaction, it is not possible to remove the film without damaging the powder coating.

### Cleaning of powder coatings

The beneficiary of the guarantee shall ensure that the powder coated components will be maintained regularly by a specialist in accordance with the attached recommendations.

The following products are available in the offer of Aliplast Sp. z o.o.

Recommendations for the care of powder-coated surfaces:

PRODUCT	PROPERTIES	APPLICATION	RECOMMENDED CARE
<b>PERIODI-CLEAN*</b>	Preventive coating protection. Also suitable for cleaning window panes.	Dissolve 2 tablespoons of the product in a bucket of warm water. Clean the frame with a soft sponge. Wipe with chamois leather.	2 to 4 times a year, depending on the level of environmental pollution: village, city, industrial area or the seaside.
<b>MAXIGLOSS*</b>	Provide the varnished surface with a new and deep gloss. Cleans and provides long-term dirt protection. Contains UV stabilisers.	Use after cleaning with <b>Periodi Clean</b> . Use without water. Apply undiluted using a cloth. Allow the product to work, then polish with a dry cloth.	1 x year
<b>MAXICLEANER*</b>	In case of damage, apply to spots of the varnish. Also suitable for stubborn dirt (e.g. adhesive residues, cement residues, etc.). Chemically neutral.	Remove heavy dirt. Apply white, liquid, undiluted paste. Wait a few minutes for the product to work (do not let it dry). Wipe off the dirt with a sponge and clean with water. Finally, clean completely with <b>Periodi Clean</b> and <b>Maxigloss</b> .	If necessary.



<p><b>RETOUCHE STIFT*</b></p>	<p>For local treatment of deep damage to the paint surface. If the stick is tightly closed, its shelf-life is 6 months.</p>	<p>Remove the screw cap with brush and holder from the container. Fill with coloured powder from the supplied can. Mix the powder and base paint with the brush. Replace the cap and holder on the metal container. Shake well (approx. 1 min.). Apply the ready-to-use paint in thin layers.</p>	<p>If necessary.</p>
<p><b>SPRAY MASTIC /PRIMER /PROMOTOR /RAL</b></p>	<p>System designed to repair mechanical damage of coatings on aluminium profiles.</p>	<p>According to the instructions supplied with the products. Depending on the depth of the damage, a different number of layers is required.</p>	<p>If necessary.</p>

\* These care products are neither aggressive nor toxic.

**Cleaning recommendations and guidelines:**

1. *After installing aluminium joinery:*

- Clean the structure well with **Periodi-Clean**, according to the guidelines.
- Remove lime and cement immediately to avoid burnout.
- Preserve the varnished coating with **Maxi-Gloss** so that it cannot be soiled again as **Maxi-Gloss** seals varnish pores with a wax-like substance, which is safe for the varnish.

2. *Periodic maintenance:*

- Periodic maintenance means cleaning from time to time. If window panes are cleaned and, e.g. window profiles are cleaned with chamois leather containing soap residue, the surface should be additionally cleaned. For this cleaning method, it is important to rinse the surface with clean cold water and remove any residual cleaning agents. Under the influence of solar UV and IR radiation, dirt remaining after cleaning and re-soiling (dust, rain, etc.) can cause damage to painted surfaces, which cannot be repaired, and loss of aesthetic values. Recommended cleaning agent: **Periodi-Clean**.

3. *Annual maintenance:*

- Annual maintenance involves more thorough cleaning than cleaning carried out during periodic maintenance. The purpose of this procedure is to remove all dirt that has accumulated during the year. Recommended cleaning agent: **Periodi-Clean**.
- After annual maintenance, it is recommended to carry out maintenance of the varnish with **Maxi-Gloss**, which simultaneously protects the coating against re-soiling.
- Depending on the environmental conditions (village, close surroundings of industrial areas, coast, city area, etc.), the frequency of annual maintenance should be increased.

## General information:

### Do:

- Clean with cold water using a soft sponge, microfibre cloth, or add a neutral cleaning agent (PH7).
- Greasy, oily or smoky substances can only be removed with odourless benzol or isopropyl alcohol (IPA). Adhesive, silicone or adhesive tape can be removed in the same way. Stubborn residues of soil can eventually be removed with a soft white eraser. Aliplast recommends **Periodi Clean** and **Maxi Gloss** as the primary products.
- During treatment, cleaning agents as well as surfaces to be cleaned should not exceed 25 °C.
- When cleaning with a neutral agent, it is necessary to rinse the surface with cold water so that no residue of the agent is left.
- Depending on ambient conditions, painted surfaces must be cleaned thoroughly at least once a year. However, thorough cleaning twice a year (e.g. in spring and autumn) is recommended.
- After cleaning and rinsing, anodised surfaces can be polished with a dry, delicate cloth to restore gloss and, in the case of stubborn local soiling, polished with a lightly abrasive paste and protected with a delicate layer of special preservative containing no wax, petroleum jelly, lanolin or similar substances. It is recommended to use **ANOD CLEANER** maintenance paste offered by Aliplast Sp. z o.o.

### Do not:

- Do not use solvents that contain ester, ketones, polyvalent alcohols, glycol ether or halogenated hydrocarbons and the like.
- Do not use strongly acid or alkaline cleaning agents (e.g. all-purpose cleaner, degreasing agent).
- Do not use products that contain abrasive components and cleaning agents of unknown composition.
- Do not clean in full sunlight. It is recommended to carry out cleaning on a cloudy or rainy day.
- It is not allowed to use steam and high-pressure cleaners with a dirt removing agent.
- It is not recommended to use hard water for cleaning as its mineral contents may cause discolouration of the coating and lead to permanent damage.
- Do not use abrasive cleaning agents or clean surfaces by friction. Delicate cotton fabrics intended for industrial cleaning may be used. Do not press the fabric too hard on the surface to be cleaned when wiping.

### Additional recommendations for texture varnishes:

1. Rinse the surface under running cold water to remove any dirt, sand and dust that has not adhered to the surface.
2. Using a sponge or microfibre cloth, carefully apply a mild soap solution to the surface and clean. Do not leave the cleaning agent on the surface for more than 1 hour.
3. Rinse thoroughly with clean cold water. A high pressure device can be used to spray the surface from a minimum distance of 1 m. Do not use any dirt removing agent or steam cleaner.
4. After rinsing, dry the surface with a clean lint-free cloth without cleaning agents or a leather cloth for windows.
5. Use **Maxi-Gloss** for surface maintenance as **Maxi-Gloss** seals varnish pores with a wax-like substance and is safe for the varnish.
6. In case of heavy soiling, repeat the operation after 24 hours.

## Basic rules of powder coating cleaning

Cleaning after installation is a common cause of coating defects, and therefore the following rules should be observed:

- Use clean water for cleaning and add a small amount of neutral or slightly alkaline detergents. Cleaning may be more effective when using a delicate non-scratching fabric to wipe the surface.
- During cleaning, the coating temperature must not exceed 60 °C.
- The temperature of the cleaning mixture of water and detergents must not exceed 25 °C. Do not clean the coating with a steam jet.
- Strongly acidic or strongly alkaline detergents as well as surfactants capable of reacting with aluminium must not be used.
- Do not use abrasive cleaning agents or clean surfaces by friction. Delicate cotton fabrics intended for industrial cleaning may be used. Do not press the fabric too hard on the surface to be cleaned when wiping.
- Do not use organic solvents containing esters, ketones, alcohols, aromatic compounds, glycol esters, chlorinated hydrocarbons, etc.
- Do not use detergents of unknown origin.
- Detergents used for cleaning must not react with the cleaned surface for more than one hour. If necessary, the cleaning process can be repeated after 24 hours.
- After each cleaning, the surface must be rinsed immediately with cold water.

### Other recommendations:

Painted façade surfaces should be cleaned by specialised companies with appropriate equipment and knowledge of the use of appropriate methods as well as the use of appropriate cleaning agents.

Companies providing façade cleaning services should hold certificates confirming their expertise and the proper quality of the services provided.

Companies cleaning building façades should have adequate civil liability insurance to satisfy customers' claims in case of damage caused by errors in professional practice.

**Aliplast Sp z o.o. recommends that coating cleaning companies have the quality mark of *Gütegemeinschaft Reinigung von Fassaden e.V. (GRM) (Quality Association for Façade Cleaning)*.**

All coatings made by Aliplast Sp. z o.o. comply with the Qualicoat quality mark, which obliges the coating contractor to ensure constant and continuous supervision of the process and to use only materials and technologies accepted by Qualicoat.

The QUALICOAT Technical Requirements contain the necessary set of conditions, which are the basic criteria that should be met by finished products at the time of acceptance in order to ensure high performance.

Visual assessment of the coating:

The appearance of the coating is assessed on a surface of significant importance, which is a part of the total surface, important from the point of view of the appearance and usability of the product.

Edges, larger recesses and secondary surfaces are not included in significantly important surfaces. The organic coating on a surface of significant importance must not have any scratches reaching the basic metal. When the organic coating on a surface of significant importance is viewed at an angle of about 60° relative to the surface, none of the following defects may be visible from a distance of 3 metres: excessive roughness, runs, blisters, inclusions, craters, matt spots, pores, indentations, scratches or other defects are unacceptable. The organic coating must be uniform in colour and gloss, with good coverage. These criteria must be met under the following assessment conditions:

- components for outdoor use: viewed from a distance of 5 m,
- components for indoor use: viewed from a distance of 3 m.

## 6. NOTES

It is very important that repairs are carried out by the company supplying the structure. In this way, the system warranty is maintained valid. Aliplast cooperates with official partners that are suitably qualified to carry out maintenance or repair works.

The physical and chemical properties of the components must be taken into account during the maintenance operations. This applies in particular to the contact with glass, varnished surfaces, sealing components, silicone and façade components.

In case of any doubts or questions after reading these instructions, please contact your local ALIPLAST representative.

**These OPERATING, CLEANING AND MAINTENANCE INSTRUCTIONS  
shall not be any basis for legal claims  
and any application of these instructions  
shall always refer to the particular situation.**

[www.aliplast.pl](http://www.aliplast.pl)



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