



# **USER MANUAL AND MAINTENANCE GUIDELINE**

# User manual and maintenance guideline for PVC-windows

## 1. Post-installation cleaning

Windows must be cleaned immediately after installation. Carefully remove all dirt with water and sponge. Also a vacuum cleaner or a plastic spade can be used for removing loose dirt. Surface protection film must be removed from the window profiles promptly after installation.

### Important information!

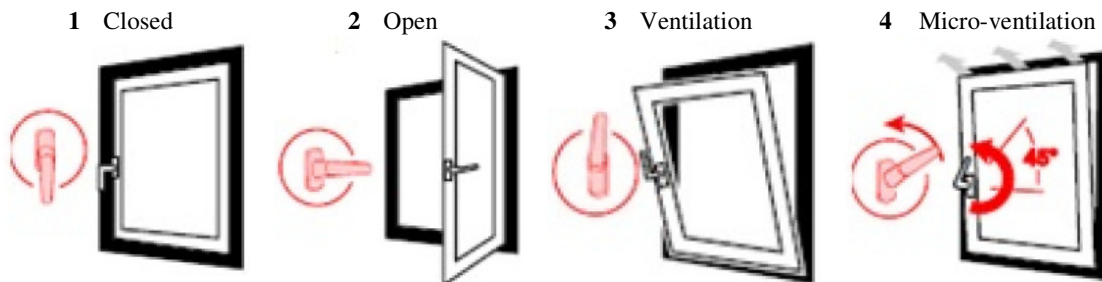
After installation, the window must be in a closed position for 24 hours.

While finishing the window reveals, the window must be closed to keep the mobile parts clean.

## 2. Opening and closing the window

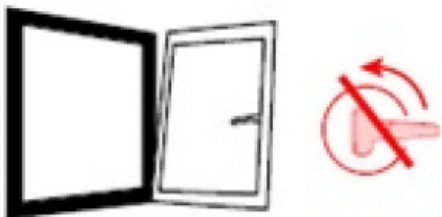
### Window handle has four positions:

- 1 - window is closed (handle in vertical position, pointing downwards)
- 2 - window is open (handle in horizontal position)
- 3 - window is open (tilted from above) in a ventilation position (handle in vertical position, pointing upwards)
- 4 - window is open in a micro-ventilation position (handle has been turned 45 degrees upwards from the horizontal position).



### 5 - Changing the handle position while the window is in open position is prohibited!

If you are opening the window sideways and the hinge has opened into the ventilation position, gently press the window back into the hinge socket and turn the handle appropriately back into the open or horizontal position.



Avoid opening the window in multiple positions simultaneously!

### 3. Maintenance

The windows need regular maintenance at least once a year: windows must be cleaned, window fittings and other mobile parts have to be cleansed and lubricated; window frames and fittings need regulating (coloured window frames may need to be maintained twice a year – in autumn and in spring). It is essential to use the windows correctly and safely.

When maintaining the fittings and other mobile parts, the following recommendations should be followed:

- lubricate all the mobile parts and the striker plates
- for lubrication, use only acid and wax free oil or lubricant
- if for some reason, the window hinges do not have the plastic protection covers on, it is worthwhile to check whether the upper hinge has been fitted and locked in a correct position during the installation
- for cleaning and maintaining, use only pH neutral products that do not damage the anticorrosive coating of the fittings
- check the fixation of screws. Unfixed screws have to be refixed, damaged screws need to be replaced for new ones.

If you encounter problems while using the windows, please contact immediately the closest representative of the manufacturer!

#### **Profile**

PVC-windows are well known for needing minimal maintenance. Window cleaner or warm soap water may be used to clean the window profiles. The most suitable choice for cleaning the window profiles is a cleaning solution for plastic that removes all the dirt.

#### **Important information!**

##### **For cleaning it is forbidden to use:**

- sharp objects (i.e. metal scrapers, steel brushes etc.) that may damage the surface of the window
- abrasive cleaning products or solutions that may react with the PVC surface and cause damages.

#### **Seals**

All the window seals have to be lubricated at least once a year (i.e. in autumn) to ensure their elasticity and better function. Use only lubricants that are designed for this purpose (i.e. silicon oil etc.).

#### **Fittings**

Cleaning and lubricating the fittings is easy as only the mobile parts and the striker plate need to be lubricated. For lubrication, we recommend using a lubricant or oil that does not contain acids or waxes (i.e. sewing machine oil). Using the regular motor oil for lubrication is prohibited.

#### **Important information!**

The windows must be lubricated at least once a year according to the maintenance guideline. This will guarantee a long service life and great function. The windows have to be regulated as necessary and at least once a year (coloured framed windows may need to be regulated twice a year – in autumn and in spring).

#### **4. To ensure the maximum service life and correct function of the windows, the following guidelines should be followed:**

- excessive weight should not be hung on the window frames
- window frames should not be twisted or pushed further than they normally open
- objects should not be inserted between the window frame and the sash
- using window restrictors is recommended to ensure the safety of children
- do not leave the windows in open position in case of strong wind or storm.

#### **5. Other possible problems**

##### **Condensate**

Dry and light air will warm quicker than heavy and damp air which means that adequate ventilation of the rooms will provide energy saving and better indoor climate.

##### **Outside surface of the glazing unit gets foggy**

Generally, the fogginess on the exterior surface of the glazing unit is unavoidable. This phenomenon is not hazardous for the window and it usually lasts for a short period of time. Fogginess on the exterior surface of the glazing unit is most common in spring and in autumn when the humidity of the ambient air is the highest. The outside surface of the glazing unit gets foggy because the outdoor temperature is higher than the temperature of the exterior surface of the glazing unit. Nowadays the windows are insulating the heat very effectively, therefore indoor heat cannot penetrate the glazing unit and keep it dry. We could even say that the occasional fogginess on the exterior surface of the glazing unit is a sign of great heat insulation or a good and contemporary window.

##### **Inside surface of the glazing unit is gets foggy**

The fogginess of the interior surface of the glazing unit probably originates from the fact that the humidity of the room is high and the inner surface of the unit does not ventilate sufficiently. The rooms must have sufficient ventilation and the ventilation valves should be open. If the building has a mechanical ventilation system, it must be checked that the ratio of intake air to outlet air is correctly regulated. The outlet airflow should be regulated a bit higher to achieve a slightly lower pressure in the rooms than in the outer atmosphere. Additionally, it should be inspected that the furniture, curtains or other objects are not obstructing the air circulation in front of the window.

The fogginess of the inside surface of the window is the most common in winter when the difference between the indoor and outdoor temperature is the greatest. If the outdoor temperature in winter is very low, the moisture in the edges of the window may even freeze.

##### **Fracturing of the glass**

The glass used for making glazing units tolerates great temperature differences, but when it is heated and cooled at the same spot, internal stress forces may develop and the glass will fracture. This phenomenon is called thermal fracturing. To avoid possible thermal fracturing, the following circumstances should be taken into consideration:

- posters, films or advertisements etc. should not be glued on the inside or outside of the glazing unit, because in that case, the air circulation on the surface of the glass is obstructed
- It is not recommended to mount blinds or other window covers that are very close to the glass on the window frames, because they also obstruct the air circulation on the surface of the glass and this may cause a thermal fracturing of the glass.

Thermal fracturing of the glazing unit is not covered by the product warranty.

## 6. Regulating the window frames

The windows must be regulated when necessary and at least once a year (coloured framed windows may need to be regulated twice a year – in autumn and in spring). There are some good tips for regulating the windows below.

The seals do not seal sufficiently. If the sealing is not sufficient, it is possible to improve the sealing by changing the position of the locking pin, which affects the sealing +/- 1 cm. (Figure A)

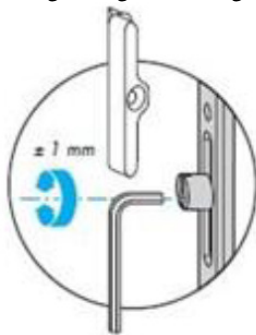
The corner of the frame on the side of the window fittings will touch the lower part of the sash. If the corner on the side of the window fittings or the left lower corner of the window frame touches the lower part of the sash, as shown in the figure, it means that the side of the fastener of the frame has sunk and it should be regulated higher. This can be done by using a 4 mm hex key. Open the window in ventilation position (tilted position) and regulate the position of the frame from the upper hinge (Figure B):

- turn the regulating screw to the right = the lower corner of the window frame on the side of the fittings will move upwards
- turn the regulating screw to the left = the lower corner of the window frame on the side of the fittings will move downwards.

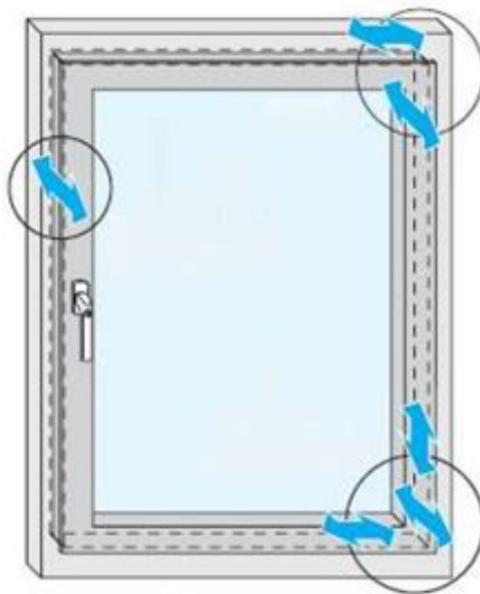
The whole lower margin will touch the lower part of the sash. If the whole lower margin of the window frame touches the lower part of the sash as presented in the figure, it means that the whole window frame has sunken and it has to be regulated higher. This can be done by using a 4 mm hex key. Remove the plastic protection cover of the hinge that is located in the lower corner of the window and regulate the hinge's regulating screw (Figure C):

- turn the regulating screw to the right = the whole window frame will move upwards
- turn the regulating screw to the left = the whole window frame will move downwards.

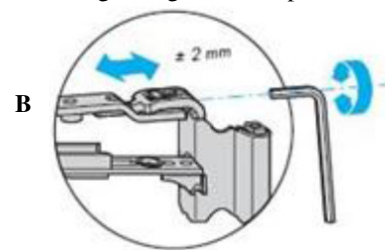
Regulating the sealing



A

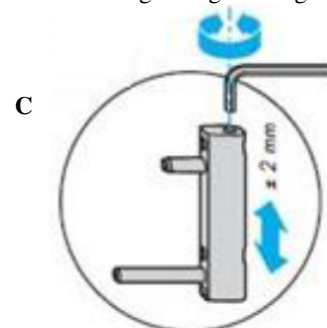


Regulating the frame position



B

Regulating the height

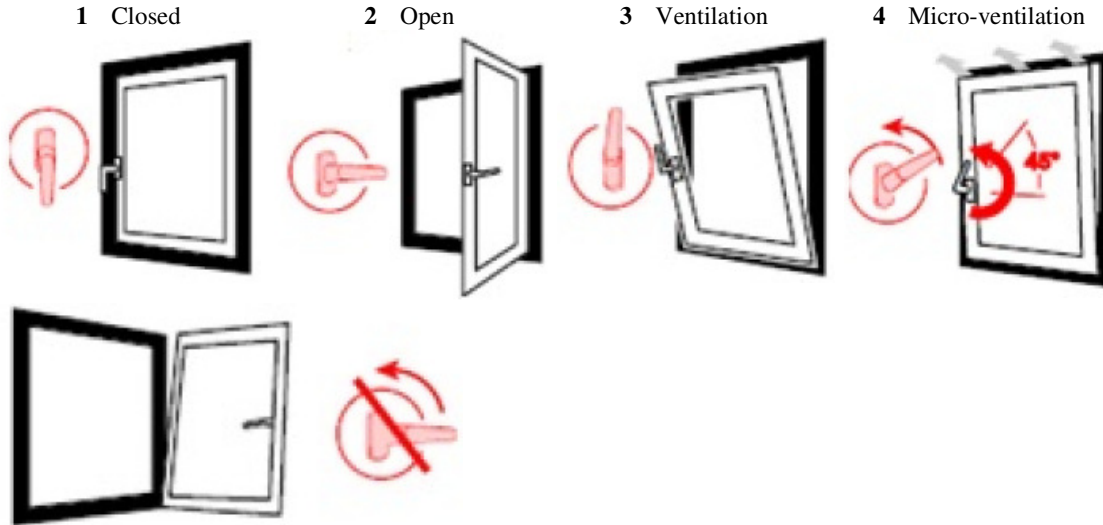


C

## 7. Using the window and safety

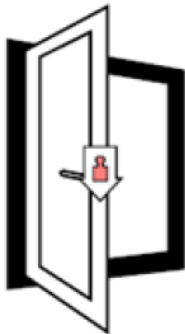
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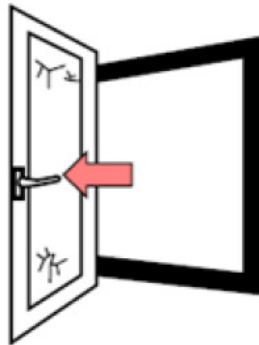


Avoid opening in multiple positions simultaneously.

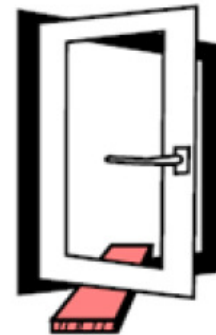
### Some tips to guarantee a long service life and safety of the window



Do not hang excessive weight on the window frames.



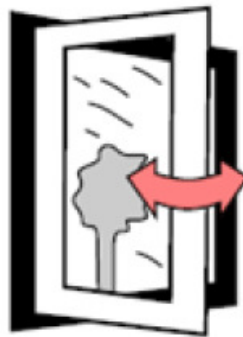
The frame should not be pressed against the window reveal.



Do not insert objects between the frame and the sash.



Please use window restrictors to assure the safety of children.



In case of strong wind and storm, please shut the windows.



Be careful while opening and closing the windows so that your hand would not get stuck between the frame and the sash.



Pane 1	PLANICLEAR 4 mm
Coating 2	PLANITHERM XN
Cavity 1	16 ARGON 90%
Pane 2	PLANICLEAR 4 mm

Name :  
Country : Estonia

Notes:

**LUMINOUS FACTORS** EN410 (2011-04)

Light Transmittance (TL)	82%
Outdoor Reflectance (RLe)	12%
Indoor Reflectance (RLi)	11%

**ENERGY FACTORS** EN410 (2011-04)

Transmittance (TE)	60%
Outdoor Reflectance (Ree)	27%
Indoor Reflectance (REi)	27%
Absorptance A1(AE1)	11%
Absorptance A2	3%
Absorptance A3	

**THERMAL TRANSMISSION** EN673-2011

Ug	1.1 W/(m <sup>2</sup> .K)
g <sup>o</sup> related to vertical position	

**SOLAR FACTORS** EN410 (2011-04)

Solar Factor (g)	62%
Shading Coefficient (SC)	0.72

**MANUFACTURING SIZES**

Nominal Thickness	24.00 mm
Weight	20 kg/m <sup>2</sup>

**COLOR RENDERING**

Ra Light Transmittance	98
Ra Outdoor Reflectance	95

**ACOUSTICS** EN 12758

Rw(C;Ctr)	31.0000 (-1; -4) dB
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**ANTI-BURGLARY** EN356

Burglar Resistance	NPD
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**UV FACTORS** EN410 (2011-04)

TUV	43%
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**SAFETY CLASS** EN 12600

Pendulum Body Resistance	NPD
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These values are calculated according to EN410 (2011-04) and EN673-2011 standards, the international standard ISO 9050, the Japanese standard JIS R 3106/3107, the Korean standard KS L 2514/2525 and the NFRC-2010 standards. For European norms, tolerances are defined according to EN1096-4 standard. Nevertheless, user must check the feasibility of the combination of glazing, particularly in terms of thickness and color. Furthermore, it is the user's responsibility to check that the resulting combination of glazing meets regulatory requirements at national, local or regional level. Computed values standards are indicative. Please use NFRC certified software for certified values. Calculation rules for EN410 (2011-04), EN673-2011, ISO 9050 (2003) m1.5 and ISO 9050 (1990) m1.0 standards and functional output of Calumen Live use Calumen 1.2.4 calculation engine, and have been validated by TUV Rheinland Quality Report 11923R-11-33705. Ug Values are calculated according to the French thermal regulation 2012 (RT2012). Acoustic indexes are representative of performances tested in laboratory conditions of a glazing of size 1.23x1.48m (EN ISO 10140-3 and EN 12758). In situ measurements may differ depending on the glazing size, environment, quality of the window frame, of the installation, source of noise, etc. The accuracy of the given indexes is in the range +/- 1dB (EN 12758). All glazing images are illustrative.

