

# Manual for Assembly and Use of Aluminium Windows and Sliding Doors of COPAL System



A prerequisite for a correct functioning of a built-ins is its proper assembly, use and maintenance.

The built-in for balcony/terrace in the Copal systems is a shielding, non-thermoinsulated built-in that protects against outdoor conditions such as: precipitation, wind blows, dirt and dust. It makes an additional obstacle for a burglar and additionally protects against traffic noise.

It is necessary to remember that for the time of absence or in case of predicted weather change, the built-in should be closed in order to avoid unwanted covering with snow, flooding with rain, or entering by third parties.

Since it is the-so-called "cold" built-in of non-insulated rooms, in order to avoid condensing water vapour on glass, a suitable airing of the room built in shall be provided, e.g. frequent airing or leaving the built-in slightly opened.

## §1

### ABSOLUTE RULES OF INSTALLATION

1. While installing, the following principles shall be absolutely observed:

- a) The underlay to which all the structures are mounted, shall be stable to withstand all wind loads that occur in a given area and not to deform or destroy them,
- b) The components fixing the structures to their underlayment have to be rust resistant and to withstand loads mentioned in point 1 a,
- c) Levelling of the structure, both laterally and longitudinally, as well as collaterality of upper and lower sections,
- d) With the frame sliding system, the distance between slideways shall enable mounting and dismounting of windows or doors, and after their installing the upper slideway has to be inserted for 5 mm into the upper horizontal profile of the installed window (door).

2. The assembly worker is fully liable for all damages arisen due to the non-compliance of assembly rules strictly defined by the System Provider.

## §2

### THE SCHEME OF MEASUREMENT AND ASSEMBLY

1. The measurements of built-ins are to be made very precisely. A size of rectangle inscribed into a window opening to be built in. Mounting clearances have to be no less than 5 mm (considering the experience of the assembly staff).

2. The supplied built-ins ready to install are to be equipped with a suitable filling. While mounting the EPDM rubber seal, it is recommended to use mild moistening agents. Take notice not to insert the filling too deep into the seal.

3. The sections or components of ready-made product shall be protected for the on site delivery. The sections shall be secured with interliners against abrasions during the transport.

4. The assembly of lower slideway:

- Set the slideway the slope outside in order to drain the rainwater,
- Level the slideway along its entire lengths (radially and axially) and use washers if necessary,
- Screw the slideway between the rails to provide its stability and resistance against wind loading,

5. The assembly of upper slideway:

- Set the upper slideway parallelly to the lower slideway. The rails of slideways shall be in vertical axis.
- When the location of upper slideway with reference to the lower slideway is achieved, level it axially and radially.

- Fix the slideway in such a way to provide its stability and at the same time remember about its sealing.

- Provide the same distance between the opposite rails along the entire length of slideways.

6. Sash inserting:

- Insert windows from the most outer window sash.
- Insert the upper part of sash into the upper slideway up to fill the resistance.
- Set the sash vertically.
- Drop the sash onto the lower slideway.

- Check a clearance between the sash and the upper slideway along the entire length of the slideways and make the clearance adjustment, if necessary (see §1, point 1, subpoint "d"),

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7. Mounting door/window frame P304
  - Insert the frame section (P304) onto a vertical profile of sash.
  - Push P 304 up to the place of mounting (together with the window section P 304).
  - Adjust the clearance between the window sections and P 304.
  - Draw the place of mounting.
  - Mount P304.
  - Adjust, if necessary.
8. To install the lower and upper slideways and the section of frame P 304, it is recommended to use mounting pins, dowels, washers made of the rust resistant materials and providing reliant and stable mounting. Remember also about suitable sealing of mounted elements with the underlayment.
9. When completing the installation, remove plaster residues, metal filings, dust dirt, etc. Prevent leaving metal elements that are not-secured against corrosion.

## §3

### THE MAINTENANCE OF BUILT-INS

1. Slightly soiled surfaces are cleaned with a soft cloth moistened in water with the addition of a mild washing-up detergent. Moderately and heavily soiled window is washed with special surfactants. Do use neither washing agents nor acids or acidic solutions and abrasive materials or solvents.
2. In order to demount of sash from its frame, open the window and then lift and slightly tilt its lower part of about 100 out of plumb and pull the sash down.
3. For correct functioning the built-in window, it is also required keeping clean the slideway installed inside the frame. Larger dirt such as leaves and twigs ought to be removed out of them, whereas the slideways of themselves shall be regularly wiped with moistened soft cloth and dedusted.
4. Roller mechanisms placed in the sash should be cleaned of dust and dirt at least twice a year (dedusting will be enough).
5. It is recommended to dedust brush seals at least twice a year (or more frequently, depending on the dust pollution of the environment) Mechanical cleaning of seals is forbidden.
6. Periodically, it is necessary to check the cleanness of drain holes located inside the slideways. It guarantees a correct drainage of rainwater.
7. It is not recommended to paint the built-in windows.

## §4

### RULES OF STORAGE AND MAINTENANCE ALUMINIUM SECTIONS AND ACCESSORIES

1. While storing and handling sections, the following rules should be observed:
  - The sections with surfaces that were not anyhow coated (e.g. with paint) shall be handled carefully having regard to their small resistance to scratches.
  - Wear gloves since sweat from hands may induce damage surface.
  - Sections shall be stored in dry indoor location.
  - Sections packaged in foil shall be unpackaged in order to avoid moistening sections and surface oxidising.
  - While transporting, do not allow to moisten or bend sections.
  - Do not store thin-walled sections prone to squeeze in too high piles.
  - Keep cleaned the surfaces of anodised and varnished aluminium sections. For this purpose use water with a neutral, mild detergent. Do not use highly alkaline substances.
  - The accessories shall be stored separately, in dry and indoor room.