

**Application\*:**

- Wintergarden unit
- Pool glazing
- Commercial application
- Commercial façade
- Living space / Fixed unit
- Standard window

**Profile System**

- ▮ The folding system SL 81 is an aluminium construction made of insulated profiles (angular) in accordance with the "Guidelines for the Verification of the Stability of Metal / Synthetic Combined Profiles" of the DIBt.
- ▮ Construction depth of panels: 80 mm.
- ▮ The profile system with multi-chamber insulating cells at the joining layer must fulfil the heat requirements of the EnEV.
- ▮ The coefficient of thermal transmission of the frame must not exceed  $U_{f,BW} = 2.2 \text{ W/m}^2\text{k}$  in accordance with DIN V 4108-4:2002-02 (equal to RMG 1 in accordance with DIN V 4108-4:1998-10).
- ▮ According to DIN EN ISO 10077-1; 2000-11 the following  $U_w$  value for a folding façade with three panels can be used:  $U_w = 1,6 \text{ W/m}^2\text{k}$ . If glass with a better  $U_g$  value or with thermally improved outer edge of composite profil („warm edge“) is used the  $U_w$  value of the folding façade improves accordingly.
- ▮ Air permeability class 4 in accordance with DIN EN 12 207 impermeability to rain class 7A according to EN 12 208, resistance to wind loads Class C3 according to EN 12 210 (stress group "D" in accordance with DIN 18 055) must be achieved.
- ▮ The panel profiles are mitred and are firmly joined with internal bonded and pressed corner pieces.
- ▮ The panels should be able to either fold inwards or outwards.
- ▮ The bottom track should be provided as a threshold with a rebate or, as an option, as a flush threshold that can be set into the floor. The design with a flush threshold must be available for shop fronts or for "barrier-free dwellings" in compliance with DIN 18 025.
- ▮ The running and guide tracks are to be integrated flush into the system and should not protrude.
- ▮ The system must be constructed so that height tolerances and expansion are allowed for without leading to a fault in function or impermeability.

**Hardware**

- ▮ All fittings must lie concealed in the profiles.
- ▮ To ensure stability of the folding façade, low-maintenance, low-rattle, rustproof and foolproof fittings are to be provided.
- ▮ The panels should interlock with minimal rattling and in principle by means of a form-fitting engagement of bolts fitted at the upper and lower running and guide rails. The rods must have polyamide caps so as not to operate "metal on metal". For optimum impermeability and break-in

protection, the entry door panel (swinging panel) should be laterally engaged with the frame or with the neighbouring panel by an additional bolting device.

- ▮ In principle, latching and unlatching of the doors should be effected by a user-friendly, one-handed 180° turn of sturdy flat handles (with a blocking element for break-in protection) from the inside.
- ▮ The entry/exit door panel (swinging panel) should have the option of being equipped with a multi-locking system operated by means of a handle, profile cylinder and standard handle instead of the flat handle.
- ▮ A design with an integrated tilt or tilt-turn panel within a door unit should be made available as an option.
- ▮ Adjustable hinges should make it easy to position the folding system.
- ▮ In addition it should not be possible to knock the hinges out (break-in prevention).

**Running Gear**

- ▮ The running gear must be floor-mounted, rustproof, and in each case have 2 ball-bearing rollers. For durability, the ball bearings must be sealed with sealing disks.
- ▮ Low-wear and low-noise operation by means of stainless steel rollers in combination with a stainless steel running track is to be provided.

**Sealing**

- ▮ Up to three layers of weather stripping should be provided, in which the middle seal should be continuous and uninterrupted. The frame should have one surrounding protective edging, which is additionally equipped with a gliding brush seal with flexible plastic edging.

**Glazing**

- ▮ The glass must be positioned into sills with a continuous snap-in bead.
- ▮ Trouble-free pane replacement at a later date should be possible.

**\* The possible applications referred to and schematic diagrams shown are examples only. This does not discharge the customer of his duty to examine in detail the applicability of a system (i.e. use, heating, country-specific regulations etc.)**

