Profile System

- SOLARLUX All Glass Series SL 25 or equivalent.

  The slide and turn system specified below is a system of transparent panels comprising heat- soaked single pane safety glass (ESG-H). The glass is to be secured by means of top and bottom aluminum profiles combined with a concealed clamping and bonding system.
- An airborne sound insulation level of up to R´w, P = 17 dB according to DIN 52 210-3 must be complied with.
- There must be an option to open the panels either to the inside or to the outside and it should be possible to push the panels to one side and then fully open them by turning.
- The system is to be designed in such a manner that it can compensate for differences in height and also for expansion.
- Height compensation of +/- 8 mm at the top runner track by means of a height compensation profile, must be possible at any stage, even after installation, without having to remove parts or the beading of the unit.
- Width compensation of the frame of + 15 mm on each side must be possible during the installation.
- It must be possible to change the adjustment range of the height compensation profile to 35 mm.
- As an option it must be possible to recess the bottom guide track into the floor to be flush with the floor level.

Door Furniture

- The use of low maintenance door furniture and trouble-free operation ensures long term serviceability of the system and therefore lasting value.
- All door furniture must be concealed in the profiles.
- The swing panel is to be locked by concealed top and bottom locking bars operated by a slim stainless steel cord. The cord is to run along the inside, in front of the glass and must be kept taut by springs. The locking bars are to be in plastic so that metal does not meet metal.
- Lockable two-stage trickle ventilation for controlled air flow should always be available and obtained by operating the swing panel by means of a cord or turning door knob.
- As an option the swing panel must be lockable from the inside so that it cannot be opened (child lock).
- As an option it must be possible to operate the swing panels from the inside and outside by means of a turning door knob or a mortice sash lock with a set of handles and profile cylinder.

Unobstructed Thresholds according to DIN 18025

- As an option it must be possible to sink the bottom track flush into the floor.
- Easy replacement of door furniture should be possible.

Runner Assembly

- Top hung, maintenance-free horizontal runner assemblies with two runners each are specified.
- The runners shall comprise smooth and easy running precision roller bearings and must provide a low noise, wear resistant, high and low temperature resistant glass-fibre reinforced polyamide bearing surface.
- The bearing capacity of the runner gear shall not be less than 35 kg.
- The runner assemblies shall be able to travel across any angle between 90° and 180°.

Weather Seal and Ventilation

- Double brush type horizontal seals shall be provided at the top and bottom.
- Defined ventilation gaps of 3 mm between the panels are to ensure permanent ventilation while the slide and turn system is closed.
- Lockable two-stage trickle ventilation for controlled airing at the swing panel is also required.

Glazing

- For the glazing, heat-soaked single pane safety glass (ESG-H) shall be used and provision made to accommodate the installation of 6 to 8 mm sealed units.
- Glass thickness suitable to withstand wind loads (subject to the shape of the building) shall be substantiated by structural calculations.
- All glass panes must comply with Building Products List and all panes must have been submitted to a heat soak test.
- The glass shall be secured to the top and bottom aluminium profiles by means of a concealed clamping system with additional bonding.
- The cut end faces of the top and bottom clamp profiles must be fully covered by UV resistant plastic caps. The caps must ensure a defined gap of 3 mm between the closed panels in order to avoid direct contact with the vertical glass edges and in order to ensure that the edge of the panel is protected.

- As an option in the case of guide tracks flush with the floor the plastic caps of the sliding panels must be of the spigot and socket joint type.
- It must be possible to clean the glass on the inside and outside from the inside of the balcony. In order clean the glass on the outside from the inside it must be possible to turn the panel inwards.
- To prevent the slide and turn panels from slamming shut it must be possible to secure them in their open position by means of a suitable panel catch.

Drainage

- The design must allow for drainage of the surface-mounted bottom guide track.

Complex Building Shapes

- It must be possible to accommodate complex building shapes by designing the runner gear in such a way that it can travel across any angle between 90° and 180°.

Installation

- For the tieing of the unit to the building, structural calculations are required which take into account wind loads, the shape of the building and the base onto which the unit is anchored.
- System profiles (height compensation profile) with mounting flange (95 mm or 165 mm) shall be available as an option to give the required distance of the fixing hardware from the edge in the ceiling area.