

# Schüco Symbiotic

The best of both worlds: Schüco Symbiotic combines aluminium and PVC-U in a completely new way to create stylish windows which offer a number of design options using both materials.

**NEW!**

AVAILABLE:  
QUARTER 2 2021



## PRODUCT HIGHLIGHTS

- Minimal face width of 110 mm
- Angular, flush-fitted design both inside and outside
- Matching glazing beads are available
- Can be combined with Schüco aluminium window systems in one building project thanks to identical design
- Optimum protection against wind, rain and noise thanks to three sealing levels made from high-quality EPDM
- Glazing is on one level in fixed lights and vent units, ensuring a harmonious look
- External colour by means of powder coating or anodising, internal colour with Schüco AutomotiveFinish or Schüco UnlimitedFinish
- Thanks to the excellent structural properties, larger units than those with aluminium cover caps are possible, for example

PVC-U is easy to maintain and an excellent choice as a window material due to its excellent cost/performance ratio and very good insulation properties. Aluminium is light, solid, corrosion-resistant, easy to maintain and its high-quality appearance makes it the perfect material for creative and contemporary architecture. With its many years of expertise in both materials, Schüco has now brought them together in one PVC-U/aluminium window design. The Schüco Symbiotic centre gasket construction achieves a thermal insulation value of  $U_f = 1.1 \text{ W/(m}^2\text{K)}$ . An insulation profile is available as an option for the outer frame in order to achieve even better values. The range will initially consist of two outer frames and two vent frames, a threshold solution as well as corresponding mullion and double-vent profiles. This means that single and multi-part units can be created with a puristic design and a wide variety of design requirements can be taken into account. Schüco Symbiotic impresses with a basic depth of 74 mm a face width of just 110 mm for the system cross section. In fixed lights and vent units, the glazing is in the same vertical plane, creating a harmonious façade appearance from the outside of aluminium without glass offset.

The system can accommodate glazing from 40 to 58 mm. The glazing rebate gasket used here comes from the Schüco aluminium portfolio. The vent frame has an adhesive rebate for optional glass bonding so that larger units can also be fabricated. Alternatively or additionally, steel reinforcements can be used. The aluminium is coloured by means of powder coating or anodising, while there is a wide range of foils to choose from for the PVC-U material used for the inside.

#### Patented sealing technology

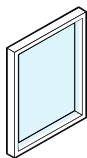
The new PVC-U/aluminium window construction is fitted with weldable EPDM vent rebate gaskets that are rolled in as standard. This creates a continuous gasket frame with soft inner corners even after the welding process – with increased watertightness in the corner areas and a closed corner appearance.

#### Efficient fabrication

The preassembled aluminium external unit is mounted on the PVC-U frame by means of mechanical fixing with a rotatable bracket on the outer frame and by means of clips on the vent.

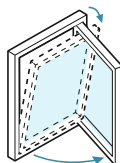
Technical information	Schüco Symbiotic
<b>Dimensions</b>	
Basic depth of outer frame	74 mm
Basic depth of vent frame	94 mm
Possible glazing thickness	40 mm – 58 mm
<b>Tests and standards</b>	
Thermal insulation in accordance with DIN EN 12412-2	$U_f = \text{to } 1.1 \text{ W/(m}^2\text{K)}$ ***
Sound reduction in accordance with DIN EN ISO 140-3 (maximum)*	Being tested
Burglar resistance in accordance with DIN EN 1627	RC2***
Air permeability in accordance with DIN EN 12207 (class)	4***
Watertightness in accordance with DIN EN 12208 (class)	9A***
Resistance to wind load in accordance with DIN EN 12210 (class)**	C5/B5***
Mechanical loading in accordance with DIN EN 13115 (class)	4***
Resistance to repeated opening and closing in accordance with DIN EN 12400 (class)	2***
Operating forces in accordance with DIN EN 13115 (class)	1***
Load-bearing capacity of safety devices TBDK	Being tested

## OPENING TYPES

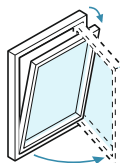


Fixed glazing

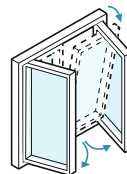
### Inward-opening:



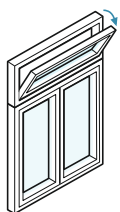
Side-hung, turn/tilt,  
bottom-hung vent



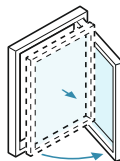
Tilt-before-turn  
vent



Double-vent vent



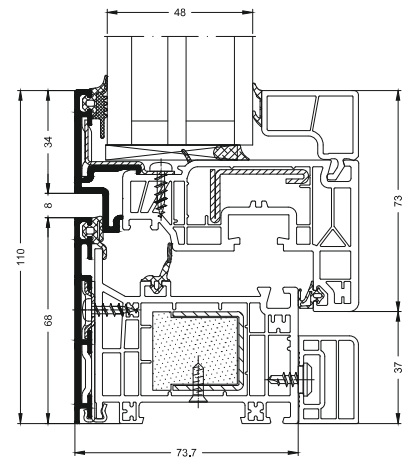
Toplight vent



Parallel-opening si-  
de-hung vent

## FABRICATION BENEFITS

- Efficient fabrication as aluminium frame can be easily clipped onto the PVC-U vent frame
- Optimised glazing rebate for optional glass bonding
- Single-part and multi-part units possible
- An insulation profile can optionally be inserted in the outer frame for improved thermal insulation



Section detail of  
Schüco Symbiotic, scale: 1:2.5

