

# uPVC

products

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PHI Certified Triple-Pane Window



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PH Performance Triple-Pane Window



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Top Performance Double-Pane Window



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Entry, Patio, Lift-Slide & Tilt-Slide Doors



EUROPEAN  
ARCHITECTURAL  
SUPPLY

FINE WINDOWS FOR ALL SEASONS



Little Compton, RI Residence

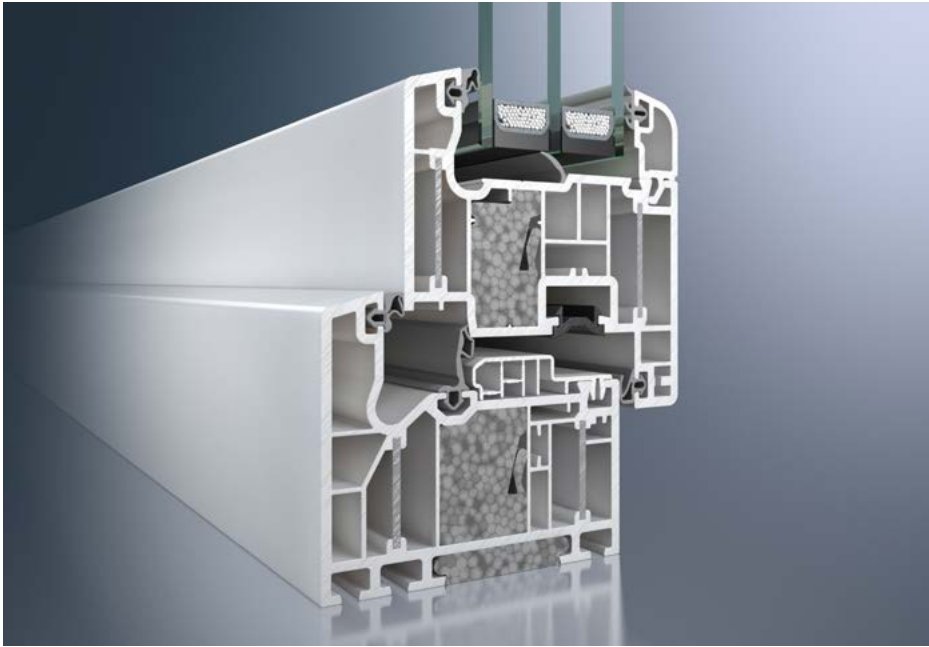
Design: ZeroEnergy Design

Aedi Construction

Product:

Schüco SI82 ThermoPlus

Glass: R-10 Triple-Pane

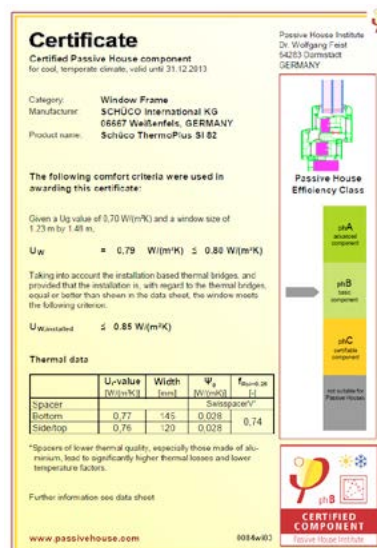


Schüco ThermoPlus

**With its outstanding thermal insulation properties, the Schüco ThermoPlus energy-saving window provides both exclusivity and a sense of well-being. Schüco SI82 ThermoPlus energy-saving windows allow you to save up to 33% of your previous energy requirements when replacing your old windows with new ones. For a traditional single family home, that is on average over 450 gallons of heating oil per year. At the same time, you help the environment by reducing CO<sub>2</sub> emissions by approximately five tons.**

When selecting uPVC window systems, you look for quality, design and innovation. The Schüco uPVC window systems combine these features into a diverse product range, offering the greatest possible design freedom with maximum planning reliability. Choose the ideal window system to suit the requirements of your building project. Basic requirements are best fulfilled with a 60 mm outer-frame depth, more sophisticated requirements with a basic depth of 70 mm. The window systems with an 82 mm basic depth are the premium range and fulfill high requirements in low energy construction.

The Schüco SI82 ThermoPlus uPVC system with three drainage levels and patented aluminum reinforcement rolling technology is based on 7-chamber uPVC technology. This high-insulation system can be used to build passive and net-zero energy buildings with narrow face widths for houses, economically and to high standards.



### Passive House Certified

The Schüco SI82 ThermoPlus, our highest performing uPVC window frame, is certified by the Passivhaus Institute in Darmstadt achieving  $U_f=0.13$  Btu/(hr. ft<sup>2</sup>.°F).

### Glass up to R-14, SHGC 0.62

Partnering with Saint Gobain Glass, we use the most innovative glass substrates in the world. Our triple-pane glass reaches up to R-14 and SHGC=0.62, giving PH designers greater flexibility when modeling projects in PHPP.

### Premium Finish Options

Our uPVC windows are available in a wide selection of woodgrain and single color decorative foils. Our RAL-certified, high quality decorative foils are weather-resistant, fade-resistant and have been successfully used for decades.



Golden Oak Finish

### Matching Doors

The SI82 ThermoPlus profile system is compatible with SI82 system for entry doors, patio doors and tilt-sliding doors, providing for a unified frame and sash design.

SCHÜCO

North American Distributor  
of Fine European Windows

MAKROWIN

# Schüco SI82 ThermoPlus Passive House Certified uPVC Profile

## Energy Efficiency

- Profile construction with optimized chamber geometry and a basic frame depth of 82 mm for excellent thermal insulation
- Large volume chambers for inserting additional, prefabricated insulation
- $U_f$  value from 0.75 to 0.98 W/(m<sup>2</sup>K)
- Steel and insulating foam-free frame construction
- Vent overlap of 8 mm minimizes heat loss
- Glass edge cover of 18 mm guarantees minimal heat loss in the glass edge seal area
- Triple glazing with a glass thickness of up to 52 mm possible
- Excellent thermal insulation due to weather-resistant outer-frame rebate gasket

## Comfort

- Narrow face widths ensure maximum light penetration
- Excellent sound reduction values
- Flush glazing bead makes the windows easy to clean
- Gasket clearance of 5 mm ensures the windows close smoothly

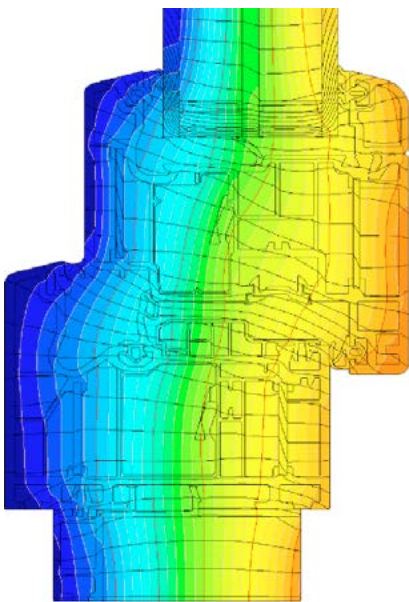
## Design

- Narrow face width of 120 mm highlights the slim-lined look of the window
- Various glazing bead contours as a design feature
- Silver-grey gaskets on white profiles for discrete appearance
- The flush fitting gaskets blend in perfectly with the appearance of the window
- Profiles can be colored with a large selection of wood grains and single color decorative foils
- A comprehensive range of aluminum cover caps is available for integration in aluminum façades

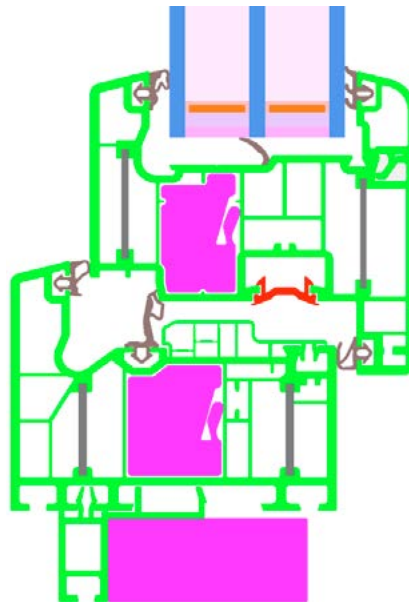
## Security

- Corner pivot fixed in the vent with screws through three uPVC walls
- Fittings axis of 13 mm allows the use of burglar-resistant hardware
- Increased basic depth for added security and burglar resistance
- All hardware components are protected from corrosion and against dirt by the outer-frame rebate gasket

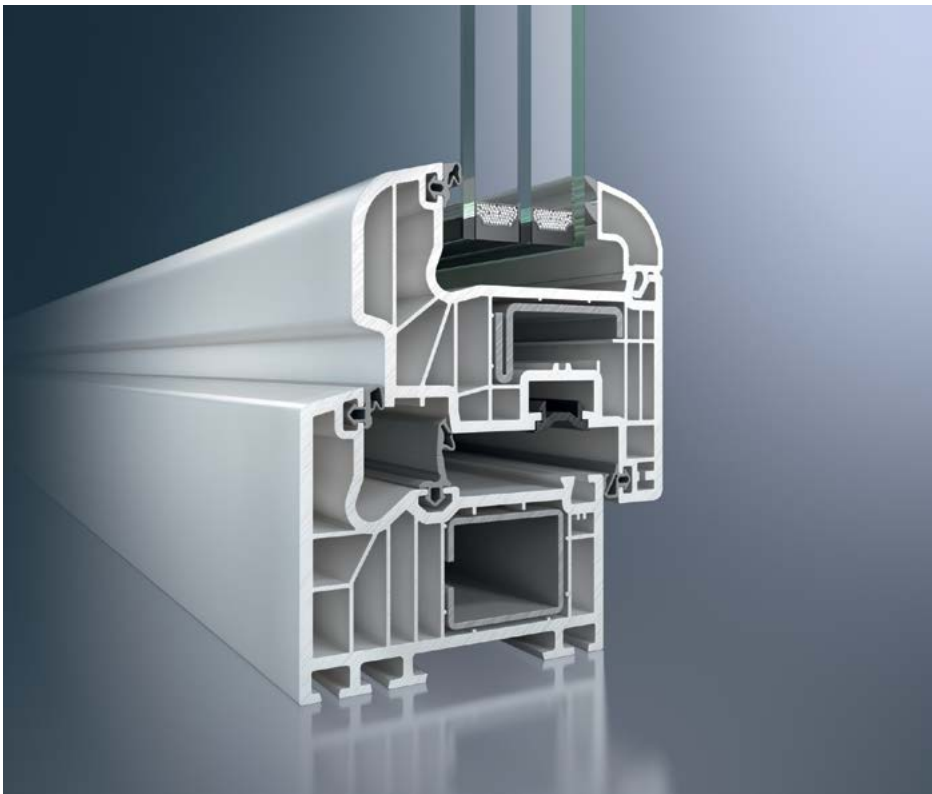
Parameters	
Frame depth	82 mm 3.23 in
Frame face width	120 mm 4.72 in
Possible glazing thickness	18 - 52 mm 0.71 - 2.05 in
Thermal insulation $U_f$	0.75 - 0.98 W/(m <sup>2</sup> K) 0.13 - 0.17 Btu/(hr. ft <sup>2</sup> . °F)



Isothermal flow in Schüco ThermoPlus



Sill section detail of Schüco ThermoPlus



Schüco SI82 Rondo

**uPVC systems with a basic depth of 82 mm achieve high thermal insulation values with the narrowest of face widths. These profile systems are the ideal answer to rising energy costs and more stringent environmental protection demands.**

When selecting uPVC window systems, you look for quality, design and innovation. The Schüco uPVC window systems combine these features in a diverse product range, offering architects a great degree of design flexibility. Choose the ideal window system to suit the requirements of your building project. The SI82 window system with the 82 mm basic depth is the perfect choice for high efficiency triple-pane applications.

Schüco SI82 window systems have three levels of drainage and conventional steel reinforcing profiles. Thanks to industrial fabrication and fast availability, they can now be used to build low-energy windows for houses economically and to high standards. SI82 window and door systems

are suitable for a wide variety of uses in both new-build and renovation projects. An extensive range of accessories ensures a high level of system security.

### Passive House Performance

Combined with R-10 triple-pane glass, SI82 is capable of achieving Passive House performance metrics, making it the most affordable uPVC option for PH projects. The added strength of SI82 frames enables the use of larger window openings up to 8 ft in height.

### Glass up to R-14, SHGC 0.62

Partnering with Saint Gobain Glass, we use the most innovative glass substrates in the world. Our triple-pane glass reaches up to R-14 and SHGC=0.62, giving PH designers greater flexibility when modeling projects in PHPP.

### Premium Finish Options

Our uPVC windows are available in a wide selection of wood grain and single color decorative foils. Our RAL-certified, high quality decorative foils are weather-resistant, fade-resistant and have been successfully used for decades.



Palette of wood and color finishes

### Matching Doors

The SI82 profile system is also available for entry doors, patio doors and tilt-sliding doors providing for a unified frame and sash design.

# Schüco SI82

## Passive House Performace Triple-Pane Windows

### Energy Efficiency

- Profile construction with optimized chamber geometry and a basic frame depth of 82 mm for excellent thermal insulation
- Uf value from 1.0 to 1.1 W/(m²K)
- Vent overlap of 8 mm minimizes heat loss
- Glass edge cover of 18 mm guarantees minimal heat loss in the glass edge seal area
- Triple glazing with a glass thickness of up to 52 mm possible
- Optimum thermal insulation due to weather-resistant outer-frame rebate gasket

### Design

- Vent profiles are available in two different contours (Classic, Rondo)
- Narrow face width of 120 mm (standard profile combination) highlights the slim-lined look of the window
- Remarkable contours with concise softform radii and sloping exposed faces
- Various glazing bead contours as a design feature
- White profiles are supplied with modern, silver-grey gaskets; foiled profiles with black gaskets as standard
- The flush fitting gaskets blend perfectly with the window's appearance
- Profiles can be colored with a large selection of wood grains and single color decorative foils
- A comprehensive range of aluminum cover caps is available for integration in aluminum façades

### Security

- Corner pivot fixed in the vent with screws through three uPVC walls
- Depending on structural requirements, various reinforcing profiles in the outer and vent frames ensure that the windows are highly robust and durable
- Special screw ports for fixing the corner pivot in the vent
- Fittings axis of 13 mm allows the use of burglar-resistant hardware
- Security locking keeps with a screw fixing

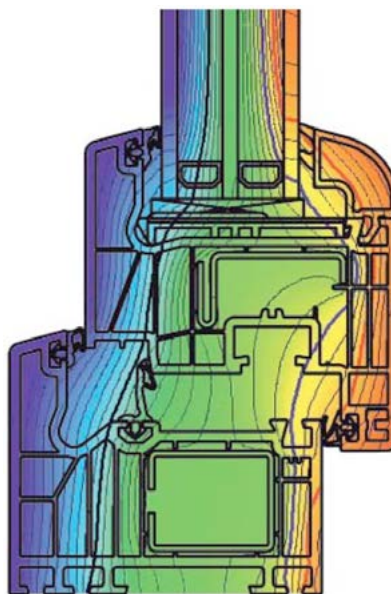
in the steel reinforcement can be used for increased security requirements

- All hardware components are protected from corrosion and against dirt by the outer-frame rebate gasket

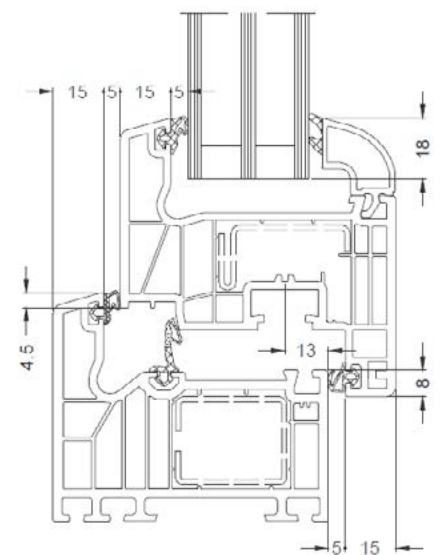
### Comfort

- Narrow face widths ensure maximum light penetration
- Excellent sound reduction values (depending on the profile combination and glazing, sound insulation values up to  $R_{w,p}$  47 dB are possible)
- Flush glazing bead makes the windows easy to clean
- Gasket clearance of 5 mm ensures the windows close smoothly

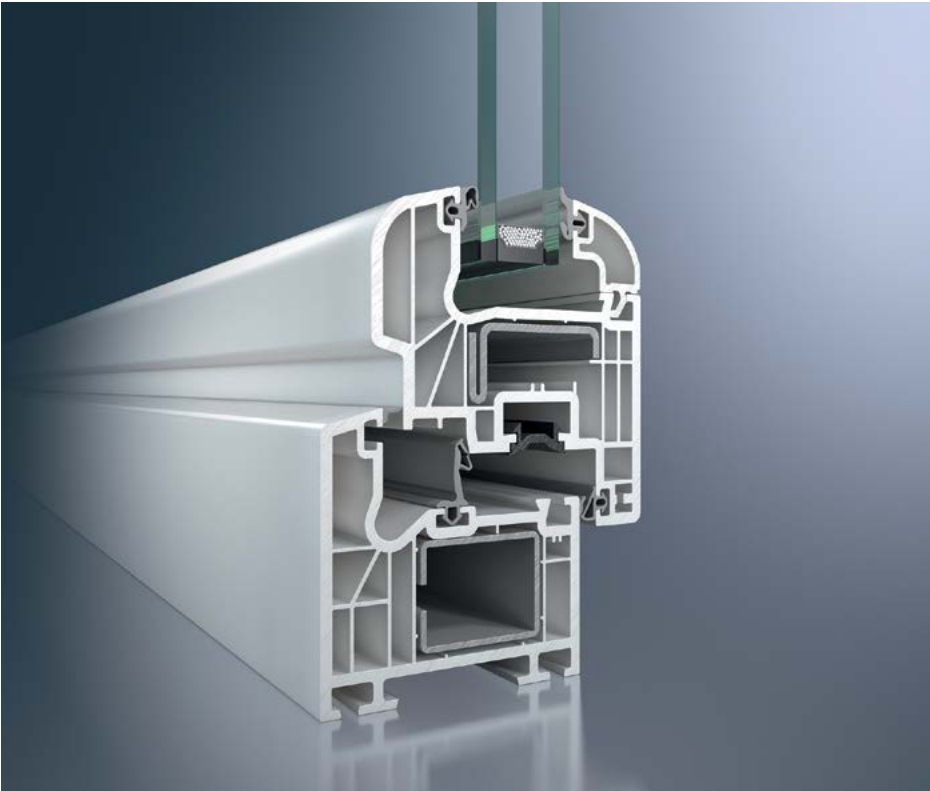
Parameters	
Frame depth	82 mm 3.23 in
Frame face width	120 mm 4.72 in
Possible glazing thickness	18 - 52 mm 0.71 - 2.05 in
Thermal insulation $U_f$	1.0 - 1.1 W/(m².K) 0.18 - 0.19 Btu/(hr. ft².°F)
Sound insulation $R_{w,p}$	47 dB



Isothermal flow in Schüco SI82 Classic



Section detail of Schüco SI82 Classic



Schüco CT70 MD Rondo

**With high thermal insulation and versatile accessories, Schüco CT70 has timeless lines, narrow face widths and very effective sound reduction.**

When selecting uPVC window systems, you look for quality, design and innovation. The Schüco uPVC window systems combine these features in a diverse product range, offering architects a great degree of design flexibility. The CT70 window system with a 70 mm basic depth is the ideal choice for well insulated double-pane or triple-pane applications.

uPVC systems with a basic depth of 70 mm achieve high thermal insulation values with the narrowest of face widths. These profile systems are the perfect answer to rising energy costs and stringent environmental protection demands.

Schüco CT70 is available as a rebate gasket system with two drainage levels (AS) and also as a center gasket system with an additional third drainage level (MD).

### Top Double-Pane Window

CT70 is currently the best double-pane uPVC window on the market. Combined with R-6 glass, it provides performance that rivals triple-pane performance from US window manufacturers.

### Affordable R-5 Performance

CT70 is one of the most affordable window products with R-6 center-of-glass (COG) performance. This makes it an excellent choice for projects that seek better energy performance at the lowest possible cost.

### Premium Finish Options

Our uPVC windows are available in a wide selection of woodgrain and single color decorative foils. Our RAL-certified, high quality decorative foils are weather-resistant, fade-resistant and have been successfully used for decades.



Winchester Finish

### Simulated Divided Lites

Unparalleled double-pane performance makes CT70 a great choice for projects requiring simulated divided lites. SDL muntins can be awkward with triple-pane glass. CT70 enables architects to achieve peak energy performance without aesthetic compromises with SDLs in triple-pane glass.

# Schüco CT70

## Great Thermal Insulation at an Excellent Price

### Energy

- Profile construction with optimized chamber geometry and a basic frame depth of 70 mm for excellent thermal insulation
- $U_f$  values from 1.2 to 1.5 W/(m<sup>2</sup>K)
- Vent overlap of 8 mm minimizes heat loss
- Glass edge cover of 18 mm guarantees minimal heat loss in the glass edge seal area
- Triple glazing with a glass thickness of up to 52 mm possible

### Design

- Vent profiles are available in three different contours (Classic, Rondo, Cava)
- Narrow face width of 120 mm (standard profile combination) highlights the window's slim-lined look
- Various glazing bead contours as a design feature
- White profiles are supplied with modern, silver-grey gaskets, foiled profiles with black gaskets as standard
- The flush fitting gaskets blend in perfectly with the appearance of the window
- Profiles can be colored with a large selection of wood grains and single color decorative foils
- A comprehensive range of aluminum cover caps is available for integration in aluminum façades

### Security

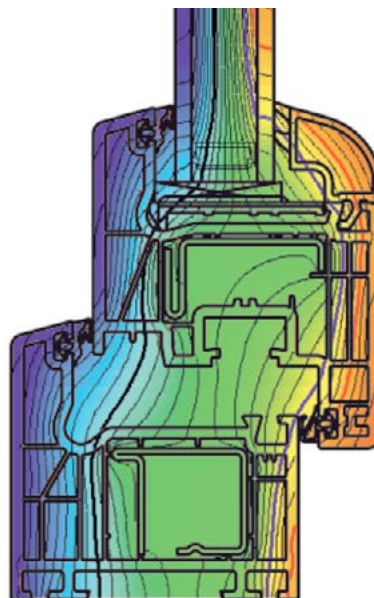
- Depending on structural requirements, various reinforcing profiles in the outer and vent frames ensure that the windows are highly robust and durable.
- Special screw ports for fixing the corner pivot in the vent
- Fittings axis of 13 mm allows the use of burglar-resistant hardware

### Comfort

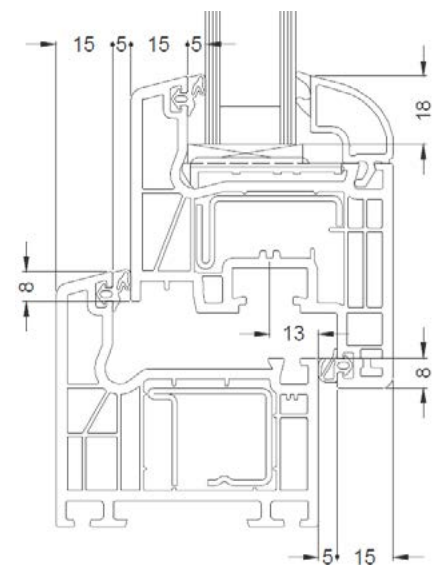
- Narrow face widths ensure maximum light penetration
- Excellent sound reduction values (depending on the profile combination and glazing, sound insulation values up to  $R_{w,p}$  48 dB are possible)

- Smooth outer-frame rebate and flush glazing bead makes the windows easy to clean
- Gasket clearance of 5 mm ensures the windows close smoothly

Parameters	
Frame depth	82 mm 3.23 in
Frame face width	120 mm 4.72 in
Possible glazing thickness	6 - 52 mm 0.24 - 2.05 in
Thermal insulation $U_f$	1.2 - 1.5 W/(m <sup>2</sup> .K) 0.21 - 0.26 Btu/(hr. ft <sup>2</sup> .°F)
Sound insulation $R_{w,p}$	46 - 48 dB



Isothermal flow in Schüco CT70 AS Classic



Section detail of Schüco CT70 AS Classic

# Schüco uPVC Doors

## Entry, Patio and Sliding Door Systems



### Schüco SI82 Entry and Patio Doors

The Schüco SI82 door system is available for both single-sash entry doors and double-sash patio doors.

#### Features and Benefits

- 5-chamber profile system with a basic depth of 82 mm
- Narrow face widths
- Excellent thermal insulation through thermal break in threshold area
- Increased basic depth for more security and protection against break-ins
- Three drainage levels for optimum protection against wind, rain and noise
- Concealed drainage



### Schüco Tilt-Slide Doors

Tilt-slide doors combine the benefits of slide and tilt-turn functions: the door units "float" on ball-bearing rollers and are very easy to open and close. Unlike standard lift-slide doors, they can also be tilted.

Schüco tilt-slide doors are the most airtight sliding doors on the market, suitable for Passive House applications. In addition, they offer the highest levels of noise reduction because of their excellent sealing qualities.



### Schüco ThermoSlide

The Schüco ThermoSlide uPVC lift-and-slide door makes a bold design statement, while at the same time flooding rooms with light and creating attractive views. Its space-saving design allows designers to create dramatic interiors.

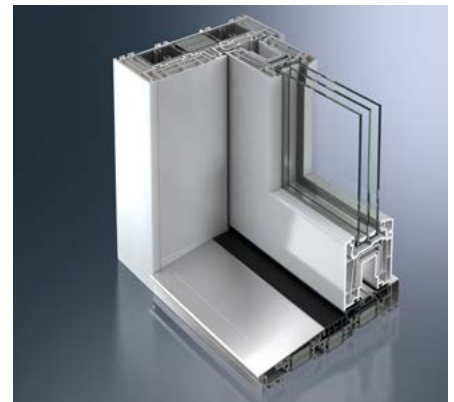
Our emphasis on energy efficiency is not only about protecting our environment but also about reducing energy costs. With sophisticated uPVC multi-chamber profiles, a basic depth of 82 mm and high-quality triple insulating glass, Schüco ThermoSlide achieves outstanding thermal insulation values up to Passive House standard ( $U_w \leq 0.8 \text{ W}/(\text{m}^2\cdot\text{K})$ ). This creates a high level of comfort in your home while cutting down on energy costs.



Schüco SI82 Door



Schüco CT70 Tilt-Slide Door



Schüco ThermoSlide Lift-Slide Door



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