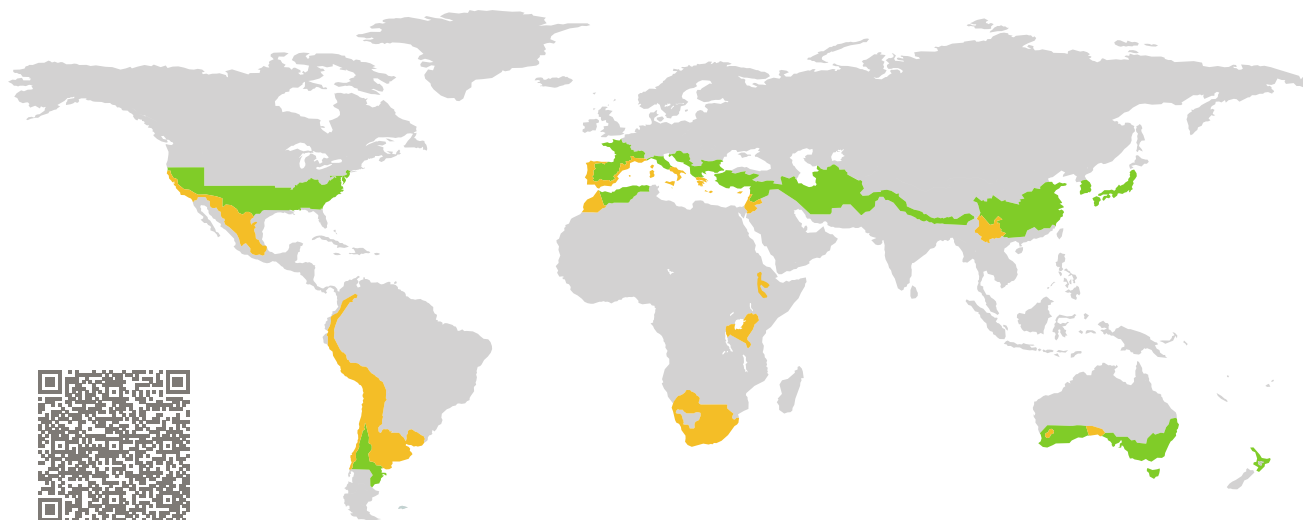


# CERTIFICADO

Componente certificado Passive House

ID de componente 1701ws04 válido até ?today?

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Alemanha

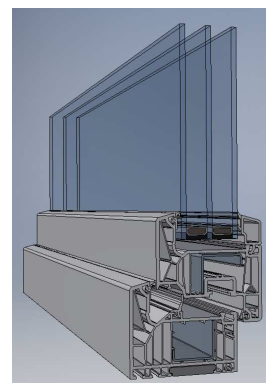


Categoria: **Sistema de janela**  
Fabricante: **Schüco Iberia S.L.,  
Valdemoro (Madrid),  
Spain**  
Nome do produto: **Schüco Living 82 MD**

**Este certificado foi concedido com base nos seguintes critérios para a zona de clima quente-temperado**

Conforto  $U_{W=1,00} \leq 1,00 \text{ W}/(\text{m}^2 \text{ K})$   
 $U_{W,\text{installed}} \leq 1,05 \text{ W}/(\text{m}^2 \text{ K})$   
con  $U_g = 0,90 \text{ W}/(\text{m}^2 \text{ K})$

Higiene  $f_{Rsi=0,25} \geq 0,65$   
Estanqueidade  $Q_{100} = 0,19 \leq 0,25 \text{ m}^3/(\text{h m})$



Passive House  
efficiency class

phE

phD

phC

phB

phA

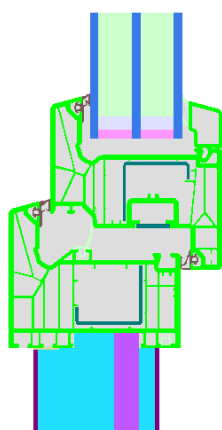
[www.passivehouse.com](http://www.passivehouse.com)

warm, temperate climate

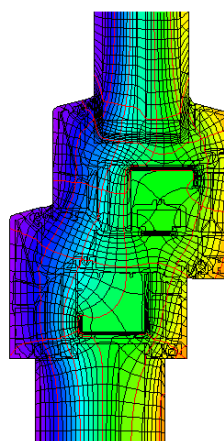


**CERTIFIED  
COMPONENT**

Passive House Institute



Modelo de cálculo



Isotérmicas

## Descrição

Perfis de PVC com reforço de aço para janelas. Isolamento XPS (0,030 W / (mK)). Valor de estanqueidade de 0,19 m<sup>3</sup> / (h \* m) fornecido em uma porta de terraço com inversor, 168 cm \* 257 cm. Espessura do vidro 44 mm (4/16/4/16/4), Altura de embutimento: 20 mm. Perfil intercalar: SWISSPACER Ultimate.

## Explicação

Os valores U para a janela foram calculados para um tamanho de amostra de 2,46 m × 1,48 m com  $U_g = 0,90$  W/(m<sup>2</sup> K) calculado. Se for usado vidro de qualidade superior, os valores U da janela serão reduzidos da seguinte forma:


Vidro	$U_g =$	0,90	0,58	0,64	0,70	W/(m <sup>2</sup> K)
		↓	↓	↓	↓	
Janela	$U_w =$	1,00	0,79	0,83	0,87	W/(m <sup>2</sup> K)

Os componentes de construção transparentes são classificados em categorias de eficiência, dependendo das perdas de calor através da parte opaca. Os valores U do aro, as larguras dos aros, as pontes térmicas e larguras do perfil intercalar estão incluídos nessas perdas de calor. O relatório detalhado com os cálculos efetuados no âmbito desta certificação encontra-se à disposição do fabricante.

Valores do aro			Largura do aro	Valor- $U$ aro	Valor- $\Psi$ perfil intercalar	Factor de temperatura
			$b_f$ mm	$U_f$ W/(m <sup>2</sup> K)	$\Psi_g$ W/(m K)	$f_{Rsi=0,25}$ [-]
Mullion Fixed	(0M1)		92	0,98	0,025	0,68
Mullion Fixed	(0M2)		112	1,10	0,026	0,68
Transom fixed	(0T1)		92	0,98	0,025	0,68
Mullion 1 casement	(1M1)		142	1,05	0,026	0,68
Mullion 1 casement	(1M2)		162	1,11	0,026	0,68
Transom 1 casement	(1T1)		142	1,05	0,026	0,68
Mullion 2 casements	(2M1)		192	1,08	0,026	0,70
Transom 2 casements	(2T1)		192	1,08	0,026	0,70
Bottom Fixed	(FB1)		110	0,86	0,026	0,69
Top fixed	(FH1)		70	0,98	0,025	0,69
Lateral fixed	(FJ1)		70	0,98	0,025	0,69
Flying Mullion	(FM1)		174	1,04	0,026	0,69
Bottom	(OB1)		160	0,96	0,026	0,70
Top	(OH1)		120	1,05	0,026	0,70
Lateral	(OJ1)		120	1,05	0,026	0,70
Threshold	(OT4)		88	1,26	0,025	0,67
Threshold	(OT5)		88	1,44	0,025	0,66

perfil intercalar: SWISSPACER ULTIMATE

Vedação secundária: Polysulfide



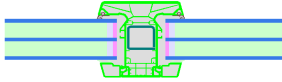
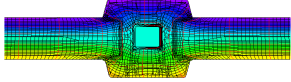
**Mullion**  
Fixed

$b_f = 92$  mm

$U_f = 0,98$  W/(m<sup>2</sup> K)

$\Psi_g = 0,025$  W/(m K)

$f_{Rsi} = 0,68$

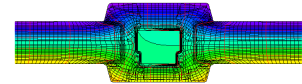
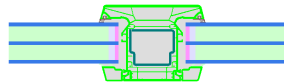





### Mullion

Fixed

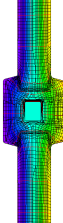
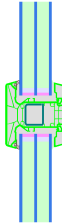
$$b_f = 112 \text{ mm}$$
$$U_f = 1,10 \text{ W}/(\text{m}^2 \text{ K})$$
$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$
$$f_{Rsi} = 0,68$$



### Transom

fixed

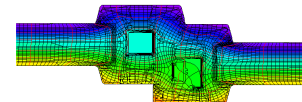
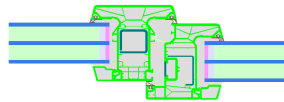
$$b_f = 92 \text{ mm}$$
$$U_f = 0,98 \text{ W}/(\text{m}^2 \text{ K})$$
$$\Psi_g = 0,025 \text{ W}/(\text{m K})$$
$$f_{Rsi} = 0,68$$



### Mullion

1 casement

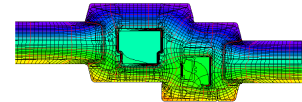
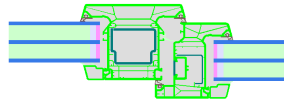
$$b_f = 142 \text{ mm}$$
$$U_f = 1,05 \text{ W}/(\text{m}^2 \text{ K})$$
$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$
$$f_{Rsi} = 0,68$$



### Mullion

1 casement

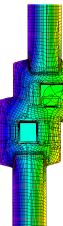
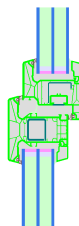
$$b_f = 162 \text{ mm}$$
$$U_f = 1,11 \text{ W}/(\text{m}^2 \text{ K})$$
$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$
$$f_{Rsi} = 0,68$$



### Transom

1 casement

$$b_f = 142 \text{ mm}$$
$$U_f = 1,05 \text{ W}/(\text{m}^2 \text{ K})$$
$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$
$$f_{Rsi} = 0,68$$





### Mullion

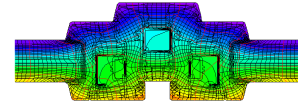
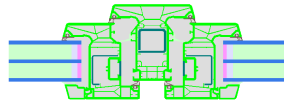
2 casements

$$b_f = 192 \text{ mm}$$

$$U_f = 1,08 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,70$$



### Transom

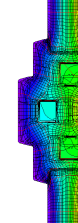
2 casements

$$b_f = 192 \text{ mm}$$

$$U_f = 1,08 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,70$$



### Bottom

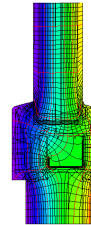
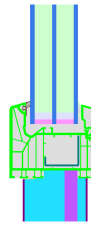
Fixed

$$b_f = 110 \text{ mm}$$

$$U_f = 0,86 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,69$$



### Top

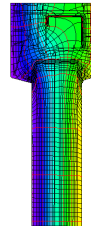
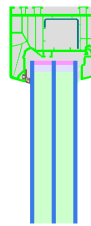
fixed

$$b_f = 70 \text{ mm}$$

$$U_f = 0,98 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,025 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,69$$



### Lateral

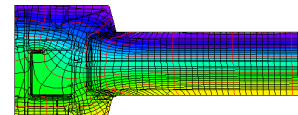
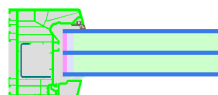
fixed

$$b_f = 70 \text{ mm}$$

$$U_f = 0,98 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,025 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,69$$





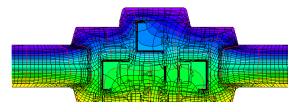
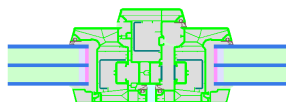
### Flying Mullion

$$b_f = 174 \text{ mm}$$

$$U_f = 1,04 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,69$$



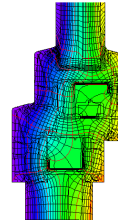
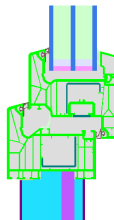
### Bottom

$$b_f = 160 \text{ mm}$$

$$U_f = 0,96 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,70$$



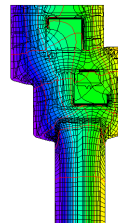
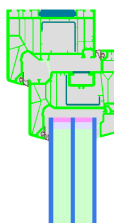
### Top

$$b_f = 120 \text{ mm}$$

$$U_f = 1,05 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,70$$



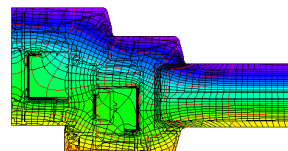
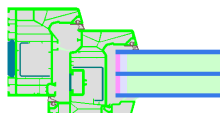
### Lateral

$$b_f = 120 \text{ mm}$$

$$U_f = 1,05 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,026 \text{ W}/(\text{m K})$$

$$f_{Rsi} = 0,70$$



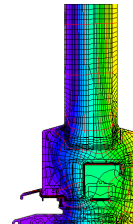
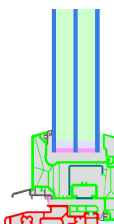
### Threshold

$$b_f = 88 \text{ mm}$$

$$U_f = 1,26 \text{ W}/(\text{m}^2 \text{ K})$$

$$\Psi_g = 0,025 \text{ W}/(\text{m K})$$

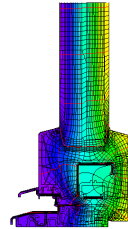
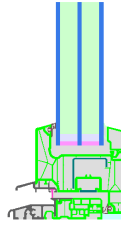
$$f_{Rsi} = 0,67$$



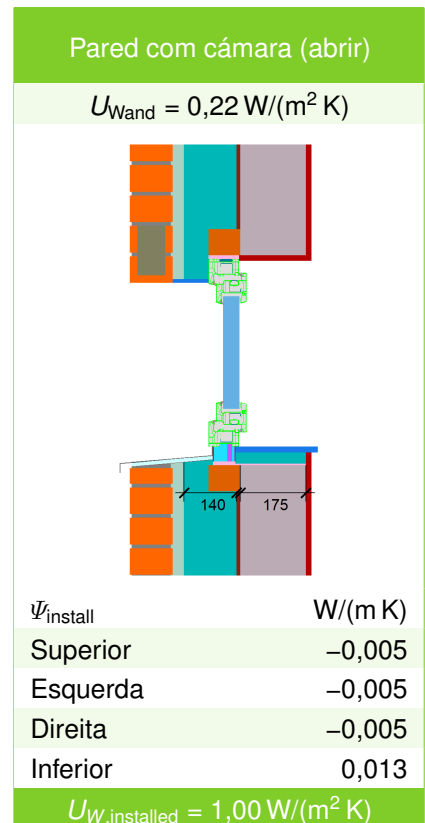
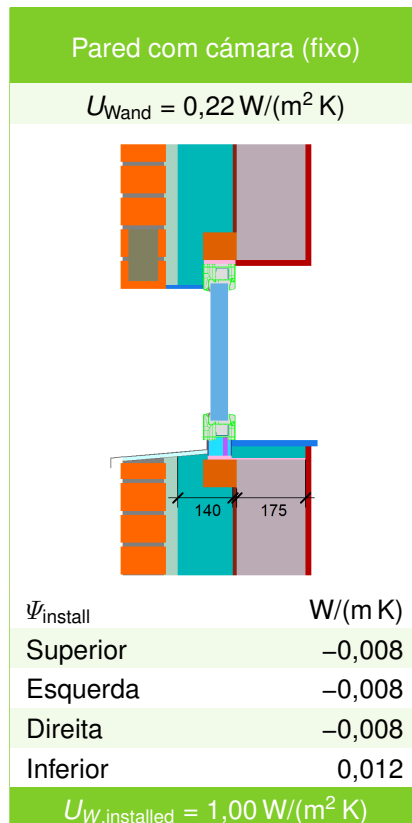
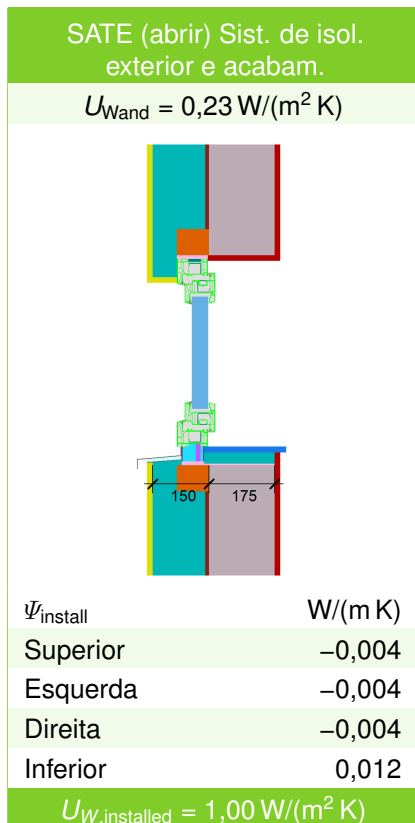
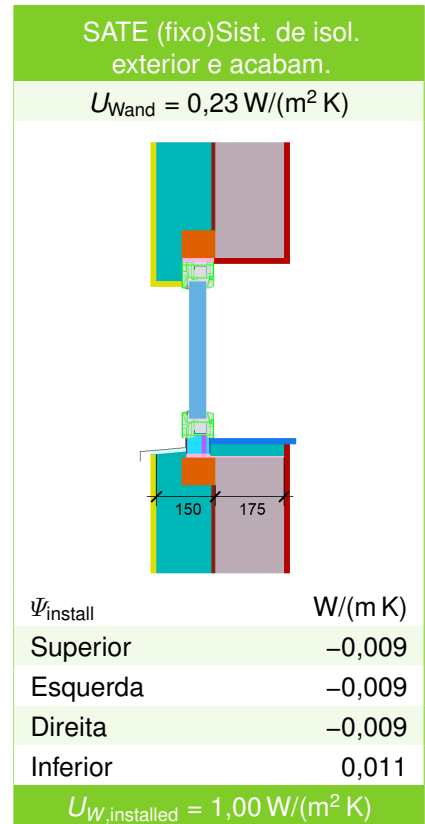
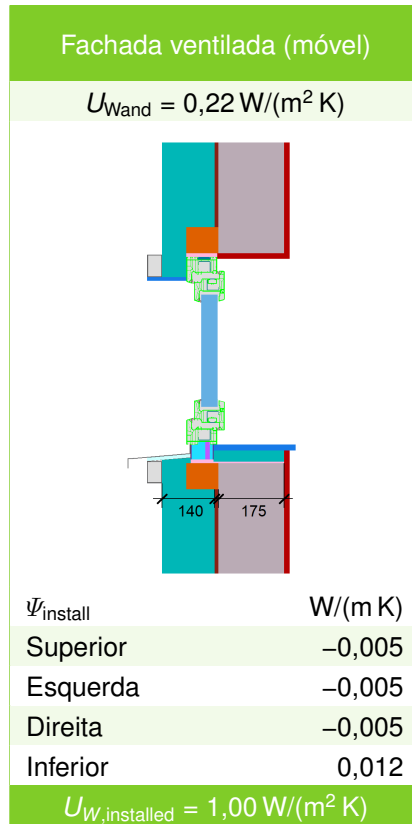
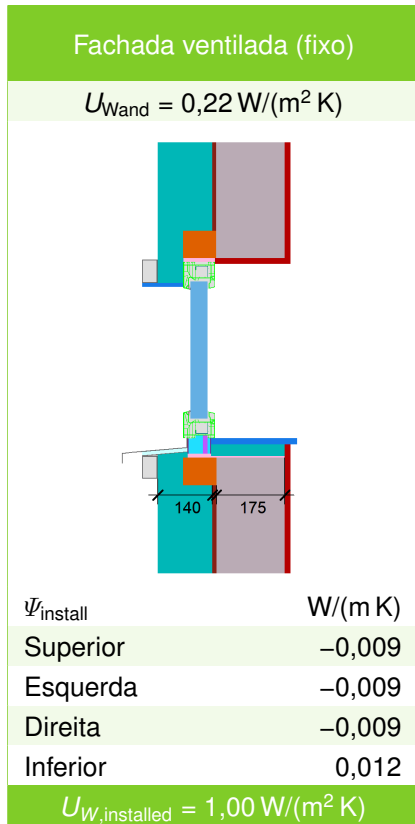


## Threshold

$$b_f = 88 \text{ mm}$$
$$U_f = 1,44 \text{ W/(m}^2 \text{ K)}$$
$$\Psi_g = 0,025 \text{ W/(m K)}$$
$$f_{Rsi} = 0,66$$



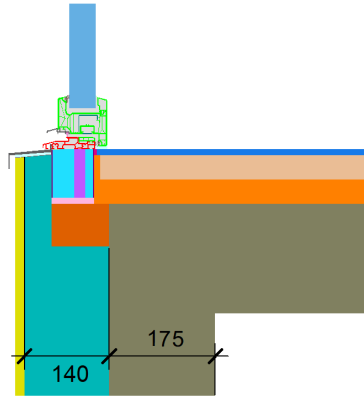
## Situações de instalação validadas





SATE Porta de entrada (abrir) Sist. de  
isol. exterior e acabam.

$$U_1 = 0,23 \text{ [W/(m}^2 \text{ K)]}$$



$$\Psi_{\text{install}} = 0,03 \text{ W/(m K)}$$

