

# Certificate

## Passive House suitable component

for cool, temperate climate, valid until 31.12.2016

Category: **Sliding Door**  
 Manufacturer: **Slavona, s.r.o.**  
**37881 Slavonice, Czech Republic**  
 Product name: **HS Progression Plus**

### The following comfort criteria were used in awarding this certificate:

Given a  $U_g$  value of  $0,70 \text{ W}/(\text{m}^2\text{K})$  and a window size of  $2.40 \text{ m}$  by  $2.50 \text{ m}$

$$U_w = 0,78 \text{ W}/(\text{m}^2\text{K}) \leq 0.80 \text{ W}/(\text{m}^2\text{K})$$

provided that the installation is, with regard to the thermal bridges, equal or better than shown in the data sheet, the sliding door meets the following criterion.

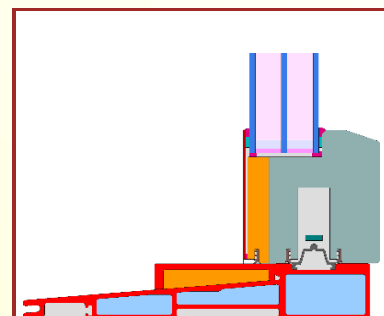
$$U_{w, \text{ installed}} \leq 0.85 \text{ W}/(\text{m}^2\text{K})$$

### Thermal data

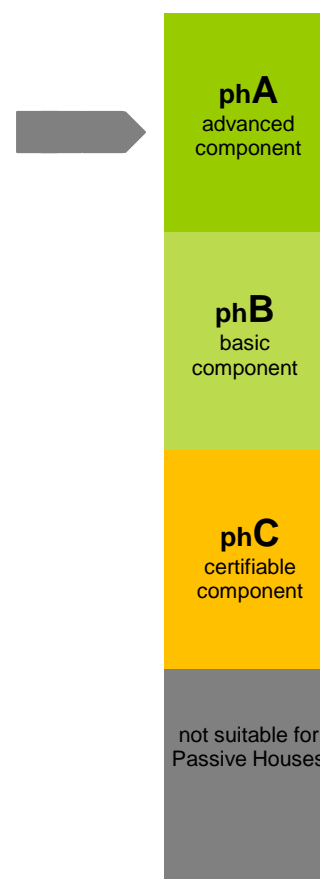
	$U_f$ -value [W/(m <sup>2</sup> K)]	Width [mm]	$\Psi_g$ [W/(mK)]	$f_{Rsi=0.25}$ [-]
Spacer	ULTIMATE Swisspacer *			
Bottom Fix	1,04	42	0,023	0,70
Bottom S	0,95	142	0,023	
Top Fix	0,63	124	0,027	
Top S	0,78	124	0,029	
Side Fix	0,74	40	0,029	
Side S	0,61	117	0,024	
Mullion	1,30	72	0,029	

\*Spacers of lower thermal quality, especially those made of aluminium, lead to significantly higher thermal losses and lower temperature factors.

Further information see data sheet

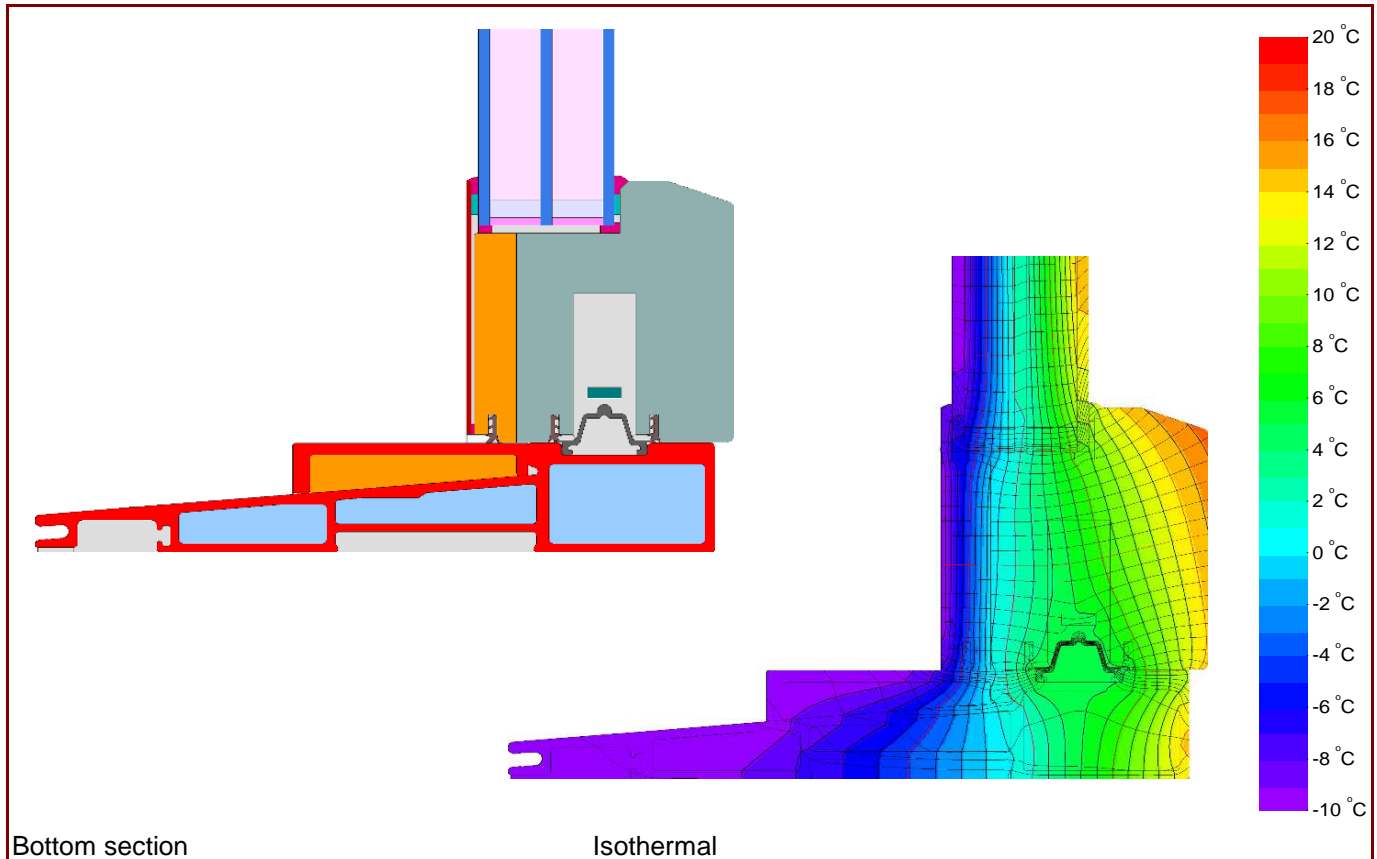


### Passive House Efficiency Class



# Data Sheet Slavona, s.r.o., HS Progression Plus

**Manufacturer** Slavona, s.r.o.  
 Stálkovská 258, 37881 Slavonice, Czech Republic  
 Tel.: +420 384 493 400  
 E-Mail: slavonice@slavona.cz, www.slavona.cz



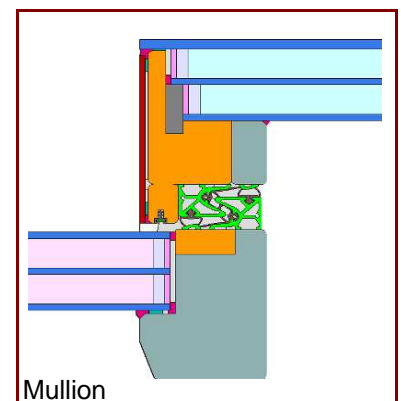
## Description

Timber- glass fibre sliding door system with insulation of expanded polystyrene (0.035) and high density-polystyrene (0.040). Window ledge profile of glass-fibre with insulation inside the cavities. Used Pane: 48 mm (4/18/4/18/4), intersection of the glass: 17 mm.

## Thermal data for the window frame

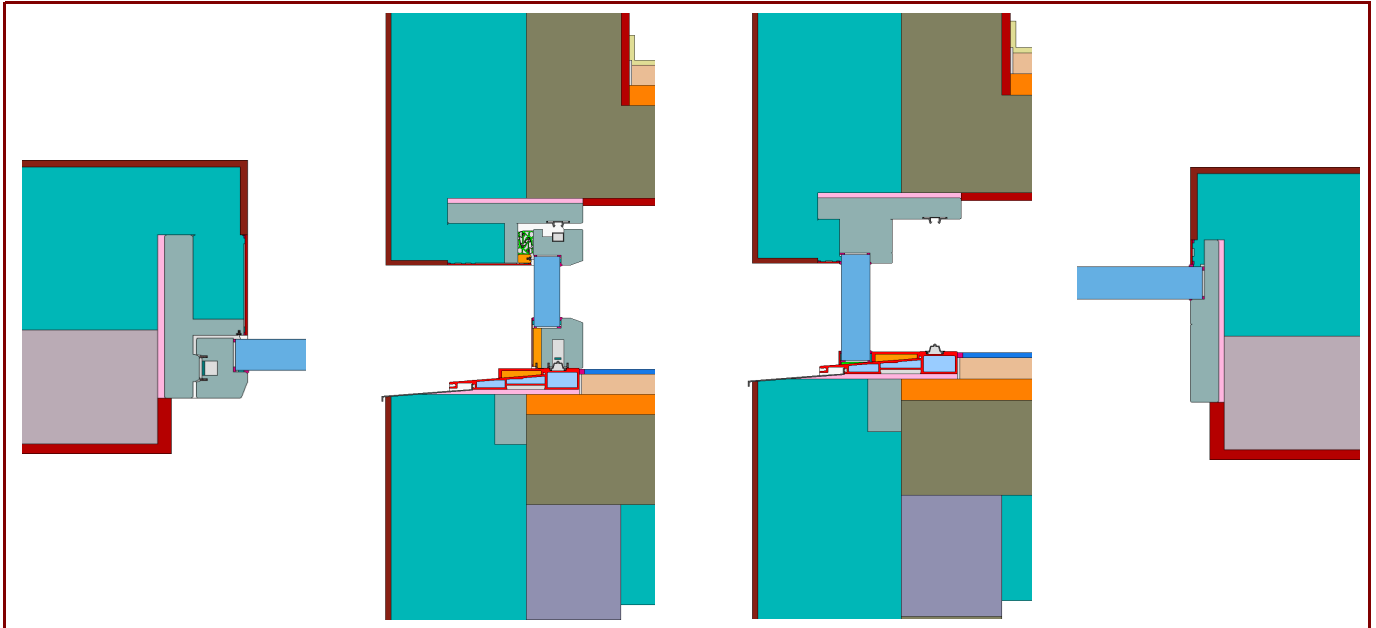
	<b>U<sub>f</sub>-value</b> [W/(m²K)]	<b>Width</b> [mm]	<b>Ψ<sub>g</sub></b> [W/(mK)]	<b>f<sub>Rsi=0.25</sub></b> [-]
Spacer	ULTIMATE Swisspacer *			0,70
Bottom Fix	1,04	42	0,023	
Bottom S	0,95	142	0,023	
Top Fix	0,63	124	0,027	
Top S	0,78	124	0,029	
Side Fix	0,74	40	0,029	
Side S	0,61	117	0,024	
Mullion	1,30	72	0,029	

\* Spacers of lower thermal quality leading to higher thermal losses and lower temperatures.



# Data Sheet Slavona, s.r.o., HS Progression Plus

## Installation



### Installation based thermal bridge $\Psi_{\text{instal.}}$ in Passive House suitable walls

		EIFS Fixed glazing (Fix)	EIFS Sliding door (S)
<b>Position</b>			
<b>Bottom</b>	[W/(mK)]	0,001	0,008
<b>Top</b>	[W/(mK)]	-0,018	0,009
<b>Side</b>	[W/(mK)]	0,004	0,016
<b><math>U_{W, \text{instal.}}</math></b>	[W/(m <sup>2</sup> K)]	0,79	

### Explanatory notes

The window U-values were calculated based on a 2.40m by 2.50 m window  $U_g = 0.70 \text{ W}/(\text{m}^2\text{K})$ .  
If better glazing is used, the window U-value decreases as following:

<b>U Glazing</b>	<b><math>U_g</math> [W/(m<sup>2</sup>K)]</b>	0,66	0,60	0,54
<b>U Window</b>	<b><math>U_w</math> [W/(m<sup>2</sup>K)]</b>	0,75	0,70	0,65

Depending on the thermal losses through opaque elements, transparent components are categorised according to efficiency classes. These thermal losses include the losses through the frame, multiplied by its width, the thermal bridge at the edge bond as well as the length of the edge bond.

Please ask the manufacturer for a detailed report containing all calculations and results.

For further information, please visit [www.passivehouse.com](http://www.passivehouse.com) or [www.passipedia.org](http://www.passipedia.org).