

Certificate

Certified Passive House Component

for cool, temperate climates; valid until 31.12.2014

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Category: **Window Frame**
 Manufacturer: **FENETRES-FRANC-COMTOISES
 MENUISERIE THIEBAUD
 25380 Belleherbe, FRANCE**
 Product name: **Caméléwood**

This certificate was awarded based on the following criteria:

Given a U_g value of $0.70 \text{ W}/(\text{m}^2\text{K})$ and a window size of 1.23 m by 1.48 m,

$$U_w = 0.78 \text{ W}/(\text{m}^2\text{K}) \leq 0.80 \text{ W}/(\text{m}^2\text{K})$$

Taking into account the installation based thermal bridges and provided that the installation is, with regard to the thermal bridges, equal or better than shown in the data sheet, the window meets the following criterion.

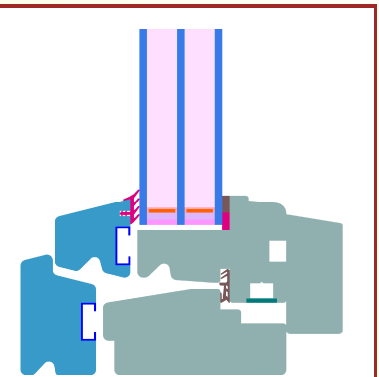
$$U_{w,\text{installed}} \leq 0.85 \text{ W}/(\text{m}^2\text{K})$$

Thermal data

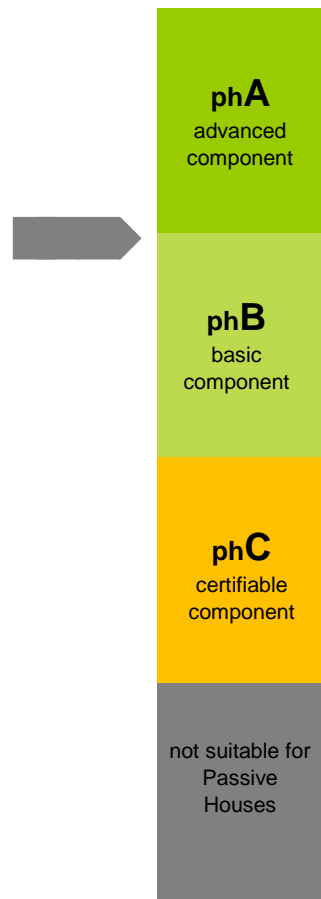
	U_f -value [W/(m ² K)]	Width [mm]	Ψ_g [W/(mK)]	$f_{Rsi=0.25}$ [-]
Spacer			Swisspacer V*	
Bottom	0.76	104	0.026	0.72
Side/top	0.77	104	0.026	

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

For further information, please see the data sheet

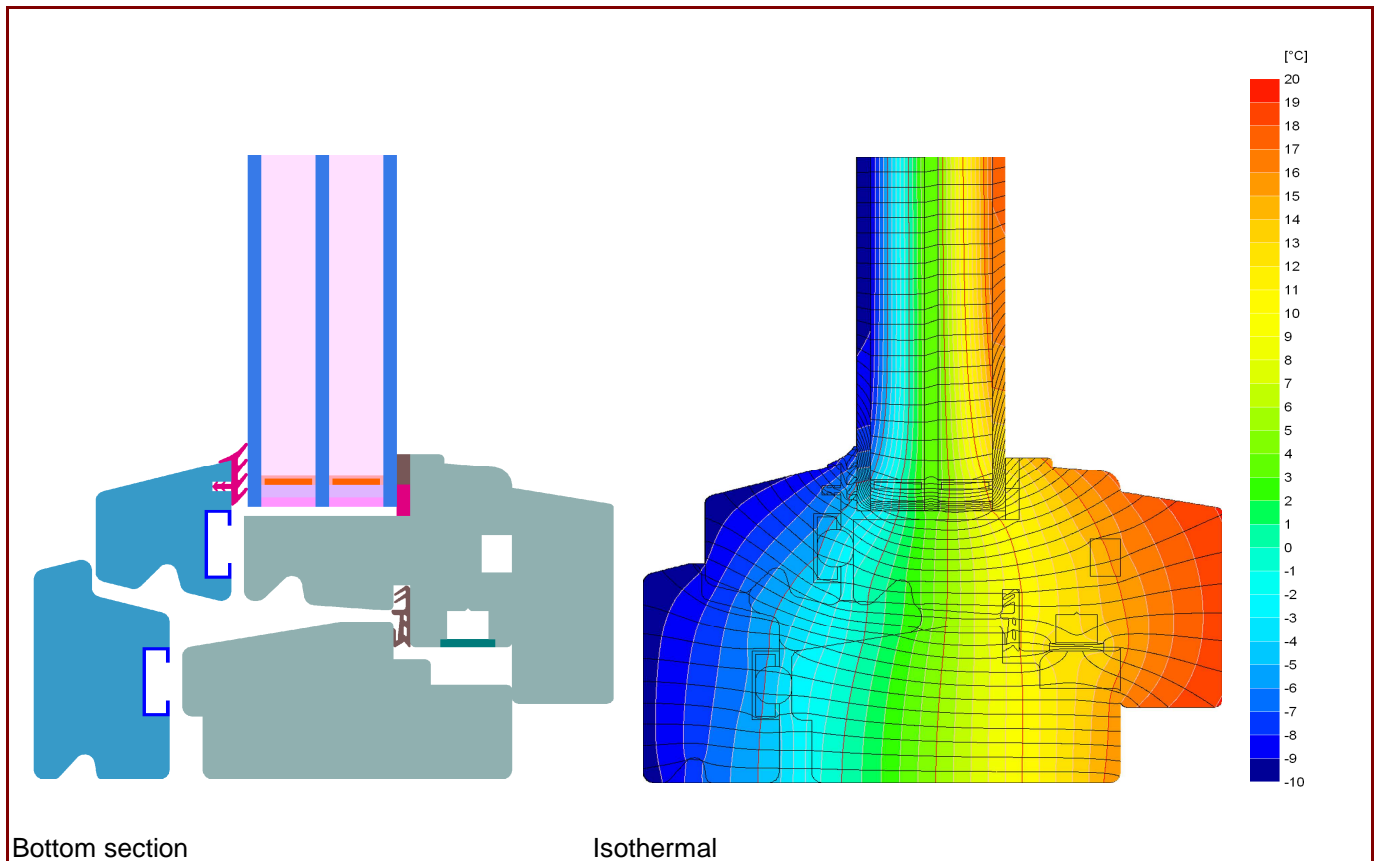


Passive House Efficiency Class



Data Sheet FENETRES-FRANC-COMTOISES MENUISERIE THIEBAUD, Caméléwood

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 20 Rue de la Grange, 25380 Belleherbe, FRANCE
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 www.fenetres-franc-comtoises.com

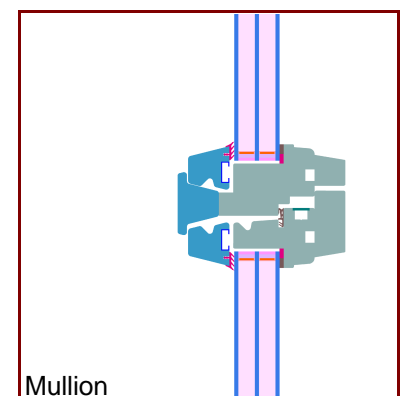


Description

Timberframe made of fir (0,11W/(mK)) and accoya. gaskets and sealings made of EPDM and silicone.. Pane thickness: 44 mm (4/16/4/16/4), Rebate depth: 17 mm.

Thermal data for the window frame

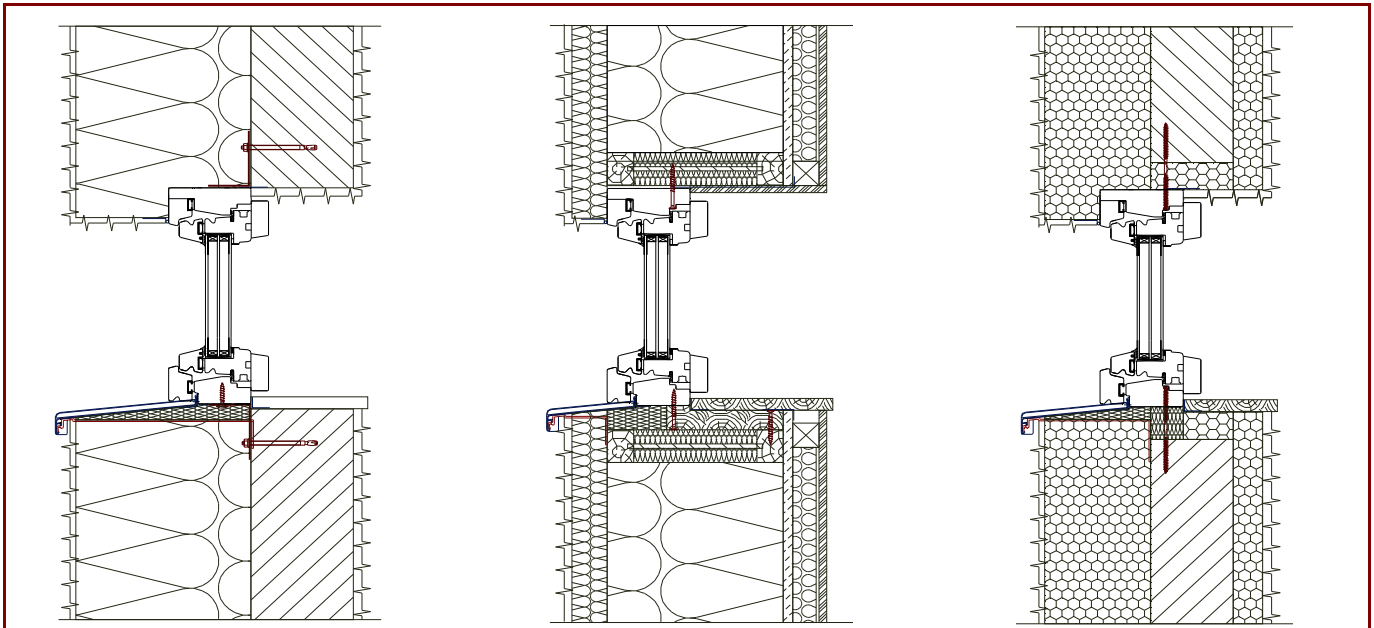
	U_f -value [W/(m²K)]	Width [mm]	Ψ_g [W/(mK)]	$f_{Rsi=0.25}$ [-]
Spacer	Swisspacer V*			0.72
Bottom	0.76	104	0.026	
Side/Top	0.77	104	0.026	
Flying Mullion	0.79	135	0.025	0.71



* Spacers of lower thermal quality lead to higher thermal losses and lower glass edge temperatures.

Data Sheet FENETRES-FRANC-COMTOISES MENUISERIE THIEBAUD, Caméléwood

Installation



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

		EIFS	Timber construction wall	Insulated formwork blocks
Position				
Bottom	[W/(mK)]	0.021	0.030	0.028
Side/Top	[W/(mK)]	0.009	0.020	0.009
$U_{W,\text{instal.}}$	[W/(m ² K)]	0.82	0.85	0.82

Explanatory notes

The window U-values were calculated based on a 1.23 m by 1.48 m window $U_g = 0.70 \text{ W/(m}^2\text{K)}$.
If better glazing is used, the window U-values decrease as follows:

U Glazing	U_g [W/(m²K)]	0.64	0.58	0.54
U Window	U_w [W/(m²K)]	0.74	0.70	0.67

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, the frame width, the thermal bridge at the glass edge as well as the length of the glass edge. Certificates for arctic regions are too valid vor cold, certificates for cold regions are too valid for cool, temperate zones.

Please ask the manufacturer for a detailed report containing all calculations and results.
For further information, please visit www.passivehouse.com or www.passipedia.org.