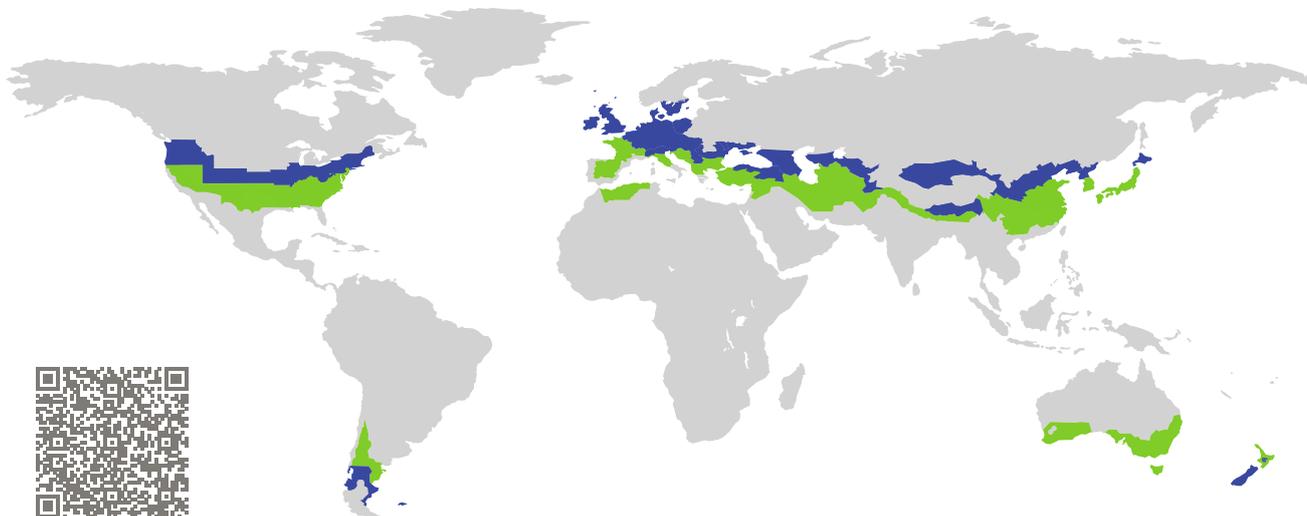


# CERTIFICATE

Certified Passive House Component

Component-ID 1528wi03 valid until 31st December 2025

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
Germany

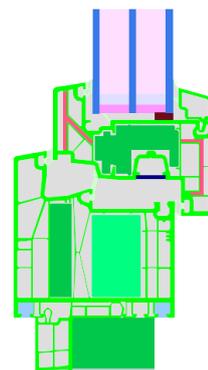


Category: **Window Frame**  
Manufacturer: **profine GmbH,  
Pirmasens, Rheinland-Pfalz,  
Germany**  
Product name: **Kömmerling 88 proStratoTec**

**This certificate was awarded based on the following  
criteria for the cool, temperate climate zone**

Comfort  $U_W = 0.80 \leq 0.80 \text{ W}/(\text{m}^2 \text{ K})$   
 $U_{W, \text{installed}} \leq 0.85 \text{ W}/(\text{m}^2 \text{ K})$   
with  $U_g = 0.70 \text{ W}/(\text{m}^2 \text{ K})$

Hygiene  $f_{Rsi=0.25} \geq 0.70$



Passive House  
efficiency class

phE

phD

phC

phB

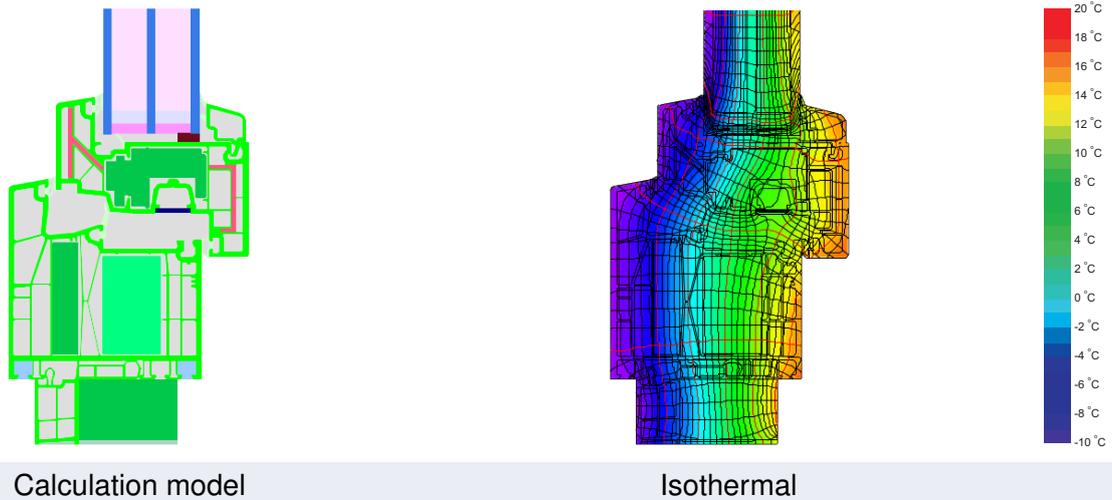
phA

cool, temperate climate



**CERTIFIED  
COMPONENT**

Passive House Institute



Calculation model Isothermal

### Description

Multi-coloured rigid PVC frame, insulated with EPS foam (Lambda 0.031 and 0.041 W/(mK)) in 3 or 4 hollow chambers; 3 sealing levels and 2 frame reinforcing elements made of polybutylenterephthalat (PBT) in standard profile, hygiene criterion fRsi of 0.7 for flying mullion not achieved.

### Explanation

The window U-values were calculated for the test window size of 1.23 m × 1.48 m with  $U_g = 0.70 \text{ W}/(\text{m}^2 \text{ K})$ . If a higher quality glazing is used, the window U-values will improve as follows:

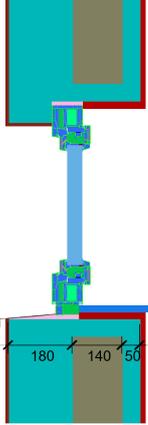
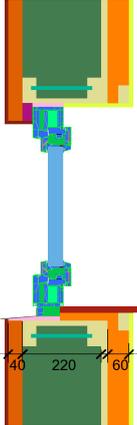
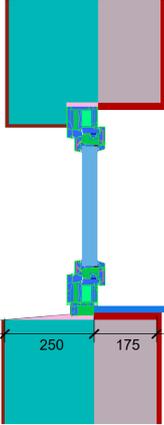
Glazing	$U_g =$	0.70	0.64	0.58	0.52	W/(m <sup>2</sup> K)
		↓	↓	↓	↓	
Window	$U_W =$	0.80	0.76	0.72	0.68	W/(m <sup>2</sup> K)

Transparent building components are classified into efficiency classes depending on the heat losses through the opaque part. The frame U-Values, frame widths, thermal bridges at the glazing edge, and the glazing edge lengths are included in these heat losses. A more detailed report of the calculations performed in the context of certification is available from the manufacturer.

The Passive House Institute has defined international component criteria for seven climate zones. In principle, components which have been certified for climate zones with higher requirements may also be used in climates with less stringent requirements. In a particular climate zone it may make sense to use a component of a higher thermal quality which has been certified for a climate zone with more stringent requirements.

Further information relating to certification can be found on [www.passivehouse.com](http://www.passivehouse.com) and [passipedia.org](http://passipedia.org).

## Validated installations

Formwork blocks (operable)	Lightweight timber (operable)	Exterior insulation and finishing system (EIFS) (operable)
$U_{\text{Wall}} = 0.15 \text{ W}/(\text{m}^2 \text{ K})$	$U_{\text{Wall}} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$	$U_{\text{Wall}} = 0.13 \text{ W}/(\text{m}^2 \text{ K})$
		
$\Psi_{\text{install}}$ W/(m K)	$\Psi_{\text{install}}$ W/(m K)	$\Psi_{\text{install}}$ W/(m K)
Top 0.001	Top 0.020	Top 0.002
Side 0.001	Side 0.020	Side 0.002
Bottom 0.014	Bottom 0.017	Bottom 0.017
$U_{W,\text{installed}} = 0.81 \text{ W}/(\text{m}^2 \text{ K})$	$U_{W,\text{installed}} = 0.85 \text{ W}/(\text{m}^2 \text{ K})$	$U_{W,\text{installed}} = 0.81 \text{ W}/(\text{m}^2 \text{ K})$

Frame values		Frame width $b_f$ mm	$U$ -value frame $U_f$ W/(m <sup>2</sup> K)	$\Psi$ -glazing edge $\Psi_g$ W/(m K)	Temp. Factor $f_{Rsi=0.25}$ [-]
Flying Mullion (FM1)		154	0.89	0.027	0.66
Bottom (OB1)		160	0.77	0.028	0.73
Top (OH1)		130	0.79	0.028	0.73
Lateral (OJ1)		130	0.79	0.028	0.73
Spacer: SWISSPACER ULTIMATE		Secondary seal: Polysulfide			

