

Energy savings

Energy savings when installing new windows		Explanation	
U _w -value (old)	3.50 W/(m ² K)	Heating degree days	4,050
U _w -value (new)	0.78 W/(m ² K)	Conversion factor from kilogrammes in litres of heating oil	1.19
Window surface area	30 m ²	Conversion heating value Wh/kg	11,800
Annual savings on heating oil	1,066 L	Heating efficiency	0.75
Annual carbon dioxide reduction	2,880 kg		

Security features

- Basic
- Basic plus
- RH 2
- RC 2

Sound insulation

- Tested up to R_w(C; C_{tr}) = 45 (-1, -4) dB

Glass thickness

- from 33 mm to 52 mm

Colour of fittings

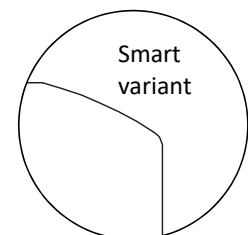
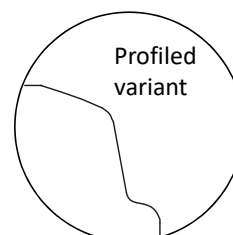
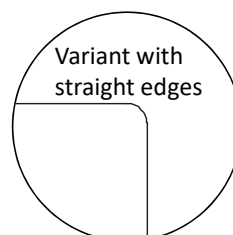
- White
- F9
- Brown, only with caps

Colours

- Inside: all colours of the IDEAL timber range (timber windows)
- Outside: all colours of the IDEAL aluminium clad timber colour range

Available glazing strips

- Standard: profiled
- Optional: smart or straight edged



Seals

- Centre sealing system
- 3 sealing levels, optionally 4 (seal inside the window frame aluminium facing)
- Available colours: black, graphite grey, brown, beige, white

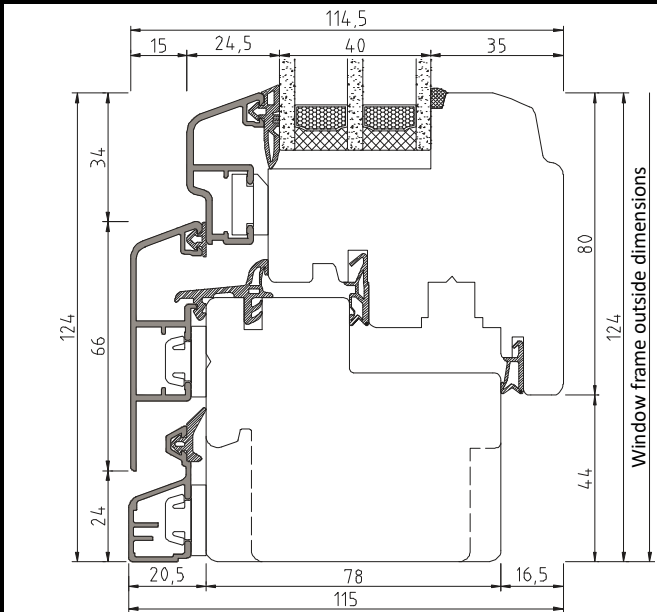
System values

- Air permeability: Class 3 (according to EN 12207)
- Water tightness Class 4A (according to EN 12208)
- Resistance to wind load: Class C3/B3 (according to DIN EN 12210)

Please note:

The classifications given here are minimum requirements.

Please contact us if higher requirements are necessary.



Fittings

Standard:

- Winkhaus ActivPilot (3-dimensional adjustment)
- Integral fail-safe device
- Window casement lift
- Coated hinges (white, brown, F9)
- 2 security strike plates
- Max. weight of casement 130 kg

Optional:

- IDEAL SELECT (concealed fittings)
- "Tilt first" (tilt then turn fitting)
- High Control (magnetic contact for electronic lock monitoring)
- PAD / PADM (parallel action fitting)

Thermal insulation

Thermal conductivity	0.11 W/(m ² K)	0.13 W/(m ² K)	0.16 W/(m ² K)	0.18 W/(m ² K)	Thermal conductivity	0.11 W/(m ² K)	0.13 W/(m ² K)	0.16 W/(m ² K)	0.18 W/(m ² K)
U _f -value	1.1 W/(m ² K)	1.2 W/(m ² K)	1.4 W/(m ² K)	1.5 W/(m ² K)	U _f -value	1.1 W/(m ² K)	1.2 W/(m ² K)	1.4 W/(m ² K)	1.5 W/(m ² K)
U _g -value	U _w -values if using aluminium spacers				U _g -value	U _w -values if using KSH/KSD spacers			
1.1 W/(m ² K) ***	1.3 W/(m ² K)	1.3 W/(m ² K)	1.4 W/(m ² K)	1.4 W/(m ² K)	1.1 W/(m ² K) ***	1.2 W/(m ² K)	1.2 W/(m ² K)	1.3 W/(m ² K)	1.3 W/(m ² K)
1.0 W/(m ² K) ***	1.2 W/(m ² K)	1.3 W/(m ² K)	1.3 W/(m ² K)	1.3 W/(m ² K)	1.0 W/(m ² K) ***	1.1 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)	1.3 W/(m ² K)
0.9 W/(m ² K) ***	1.2 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)	1.3 W/(m ² K)	0.9 W/(m ² K) ***	1.1 W/(m ² K)	1.1 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)
0.8 W/(m ² K) ***	1.1 W/(m ² K)	1.1 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)	0.8 W/(m ² K) ***	1.0 W/(m ² K)	1.0 W/(m ² K)	1.1 W/(m ² K)	1.1 W/(m ² K)
0.7 W/(m ² K) ***	1.0 W/(m ² K)	1.1 W/(m ² K)	1.1 W/(m ² K)	1.2 W/(m ² K)	0.7 W/(m ² K) ***	0.93 W/(m ² K)	0.97 W/(m ² K)	1.0 W/(m ² K)	1.1 W/(m ² K)
0.6 W/(m ² K) ***	0.95 W/(m ² K)	0.99 W/(m ² K)	1.1 W/(m ² K)	1.1 W/(m ² K)	0.6 W/(m ² K) ***	0.87 W/(m ² K)	0.91 W/(m ² K)	0.96 W/(m ² K)	1.0 W/(m ² K)
0.5 W/(m ² K) ***	0.88 W/(m ² K)	0.92 W/(m ² K)	0.98 W/(m ² K)	1.0 W/(m ² K)	0.5 W/(m ² K) ***	0.80 W/(m ² K)	0.84 W/(m ² K)	0.90 W/(m ² K)	0.93 W/(m ² K)
Thermal conductivity	0.11 W/(m²K)	0.13 W/(m²K)	0.16 W/(m²K)	0.18 W/(m²K)	Reference dimensions 1,230 x 1,480 mm				
U _f -value	1.1 W/(m ² K)	1.2 W/(m ² K)	1.4 W/(m ² K)	1.5 W/(m ² K)	U _w -value calculated according to EN ISO 10077-1:2006 + AC:2009 thermal performance of windows, doors and shutters – Calculation of thermal transmittance – Part 1: General				
U _g -value	U _w -values if using Swisspacer V				***	Calculated according to EN 673			
1.1 W/(m ² K) ***	1.2 W/(m ² K)	1.2 W/(m ² K)	1.3 W/(m ² K)	1.3 W/(m ² K)	0.11 W/(m ² K)	Spruce			
1.0 W/(m ² K) ***	1.1 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)	1.2 W/(m ² K)	0.13 W/(m ² K)	Pine, European larch, Meranti Light Red Southeast Asia, Eucalyptus RED Grandis, European alder (black alder)			
0.9 W/(m ² K) ***	1.0 W/(m ² K)	1.1 W/(m ² K)	1.1 W/(m ² K)	1.2 W/(m ² K)	0.16 W/(m ² K)	American cherry tree			
0.8 W/(m ² K) ***	0.97 W/(m ² K)	1.0 W/(m ² K)	1.1 W/(m ² K)	1.1 W/(m ² K)	0.18 W/(m ² K)	European oak, steamed beech, European beech, European birch European maple; Sycamore maple, American walnut			
0.7 W/(m ² K) ***	0.91 W/(m ² K)	0.95 W/(m ² K)	1.0 W/(m ² K)	1.0 W/(m ² K)					
0.6 W/(m ² K) ***	0.84 W/(m ² K)	0.88 W/(m ² K)	0.94 W/(m ² K)	0.97 W/(m ² K)					
0.5 W/(m ² K) ***	0.78 W/(m ² K)	0.82 W/(m ² K)	0.87 W/(m ² K)	0.91 W/(m ² K)					