» WICLINE 95 – Passive house certified components to achieve energy efficiency class phB

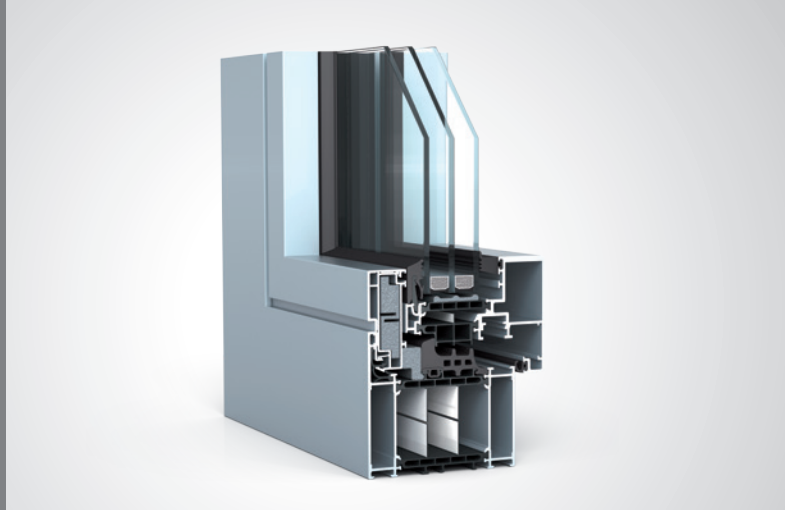
- The new ETC Intelligence thermal break zone offering the highest level of energy efficiency in accordance with passive house standards – phB.
- A highly flexible system which can be adapted to achieve the required U_f-values
- U_f-value achievable up to 0.68 W/m²K without foam inserts in the sash/frame profile. U_w-value less than 0.80 W/m²K

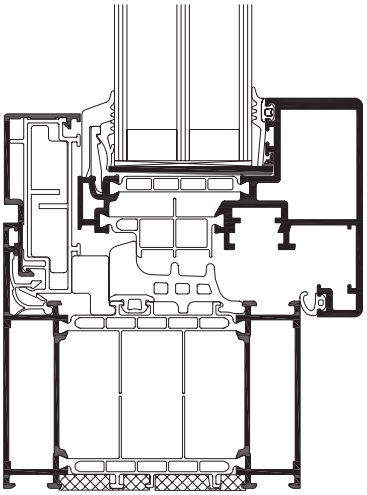
phB
CERTIFIED COMPONENT
Passive House Institute

WICONA®
TECHNIK FÜR IDEEN

Passive house certification – energy efficiency Class phB

WICLINE 95 meets the strict requirements of the Passive House Institute Dr. Feist in Darmstadt, Germany. Its modular system offers maximum design flexibility for projects.





WICLINE 95

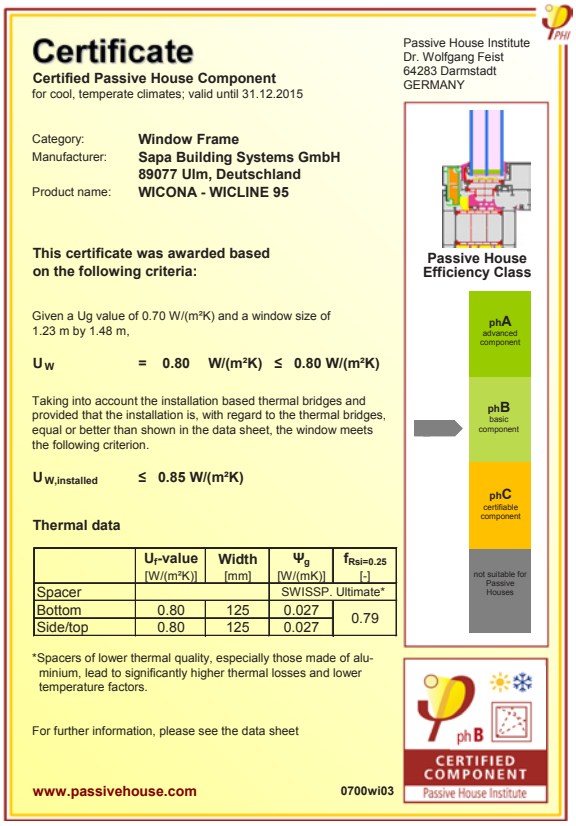
WICLINE 95

The WICLINE 95 window system meets the highest energy efficiency standards with a frame depth of only 95 mm and a slim sightline of only 125 mm.

The Thermo Frame insulation zone for WICLINE 95 is located inside the rebate area of the window and can be fabricated and installed quickly and easily through an intelligent clamping system. This feature allows adjustment of the U_f-value as required for the building.

The main components of the WICLINE 65 and 75 series are used for WICLINE 95 in line with the WICONA Unysis principle to simplify ordering and minimize stock keeping.

The new ETC Intelligence® thermal break zone through its intelligent material mix achieves passive house class phB and removes the need for foam inserts in the sash or frame profile.



Certificate

Certified Passive House Component
for cool, temperate climates; valid until 31.12.2015

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Category: **Window Frame**
Manufacturer: **Sapa Building Systems GmbH**
89077 Ulm, Deutschland
Product name: **WICONA - WICLINE 95**

This certificate was awarded based on the following criteria:

Given a Ug value of 0.70 W/(m²K) and a window size of 1.23 m by 1.48 m,

U_W = **0.80 W/(m²K) ≤ 0.80 W/(m²K)**

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.

$U_{W,installed}$ ≤ **0.85 W/(m²K)**

Thermal data

	U_f-value [W/(m²K)]	Width [mm]	Ψ_g [W/(mK)]	$f_{Rsi=0.25}$ [-]
Spacer			SWISSP. Ultimate*	
Bottom	0.80	125	0.027	0.79
Side/top	0.80	125	0.027	

*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

phA advanced component
phB basic component
phC certifiable component
not suitable for Passive Houses

phB CERTIFIED COMPONENT Passive House Institute

www.passivehouse.com 0700wi03

ETC Intelligence® means:

- Low **E**mission foil to reflect heat emissions effectively
- Low **T**ransmission insulation strips to keep heat transfer to a minimum
- Low **C**onvection insulation profile fins to minimize heat loss through convection in the thermal break zone

Thermal insulation:

- U_f from 0.68 to 0.91 W/(m²K) for fixed glazing with outer sightline from 65 to 180 mm
- U_f from 0.75 to 0.88 W/(m²K) for sash/ frame combinations with outer sightline from 105 to 260 mm
- Passive house energy efficiency Class phB, U_w / U_f = 0.80 W/(m²K), with only 95-mm frame depth and 125-mm outer sight line for sash/frame combination

WICSTAR DPS system hardware:

- High quality concealed hardware components with **D**irect **P**ositioning **S**ystem (DPS). All parts can be installed in any sequence. Sash weights of up to 160 kg for concealed hinges and up to 200 kg for surface-mounted hinges

System combinations:

- WICLINE 95 is fully compatible with WICTEC curtain wall systems by using clamping frames