

sapa:

Sapa Window 1086/SX/PX

High insulated window to Passive House level



Sapa Window 1086, 1086 SX and 1086 PX

Sapa Window 1086 has a strong design based on 86 mm deep profiles. It is insulated with 42 mm glass-fibre-reinforced polyamide strips and meets the highest classes of airtightness and watertightness, and has a very low U-value. To maximize energy performance it can be fitted with special insulation strips to meet super-insulated (SX) specification or Passive House (PX) specification.

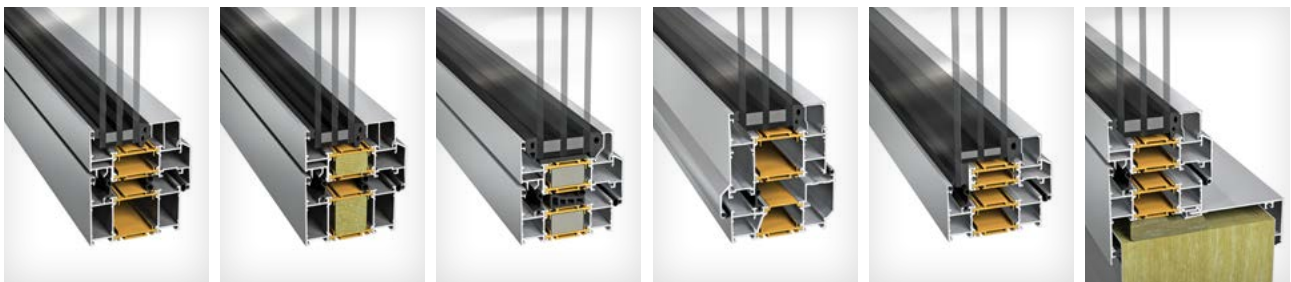
Our aluminium windows combine good durability, minimal maintenance and long life.

Available as fixed or inward-opening window with optional concealed hinges.

Passive House level with U-values down to 0.80 W/m²K for window measuring 1230 x 1480 mm.

Sound reduction, R_w-value, up to 45 dB for opening window measuring 1230 x 1480 mm.



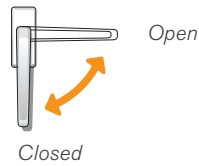
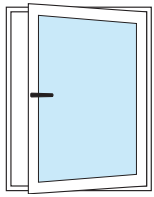


1086	1086 SX	1086 PX	1086	1086 block window	1086 panel wall
inward-opening	inward-opening	inward-opening	outward-opening	inward-opening	inward-opening
Side-hung	Side-hung	Side-hung	Side-hung	Side-hung	Side-hung
Bottom-hung	Bottom-hung	Bottom-hung	Bottom-hung	Bottom-hung	Bottom-hung
Top-hung	Top-hung	Top-hung	Top-hung	Top-hung	Top-hung
Tilt and turn	Tilt and turn	Tilt and turn	-	Tilt and turn	Tilt and turn
Fixed window/element	Fixed window/element	Fixed window/element	Fixed window/element	Fixed window/element	Fixed window/element

- **1086, 1086 SX and 1086 PX.** Inward-opening windows. High insulated window to Passive House level.
- **1086 outward-opening window.** Often used for fresh air ventilation, smoke ventilation and emergency exits.
- **1086 block window** has a stepped glazing unit that conceals the sash from the outside, giving the window a larger glazed area.
- **1086 for sandwich panel wall** has a frame designed for efficient installation in panel wall structures made from sheet metal and insulation. The frame has the rebate towards the outside of the wall and is secured with concealed fittings from the inside. The inside is finished with special aluminium profiles. Door 2086 is also available with a custom profile. See *website*.
- **Fixed windows and glazed elements** are designated as 3086.

Performance windows	Window inward-opening			French window inward.	Window outward.	French window outward.
Sapa Window	1086, 1086 SX	1086 PX	1086 Block window	1086, 1086 SX	1086	1086
Glass thickness	20-64 mm	35-55 mm	22-49 mm	20-64 mm	20-64 mm	20-64 mm
Profile depth	86 mm					
Frame outer dim.	For frame outer dimensions for different variants, see website					
Water tightness	Class 9A according to EN 12208					
Air permeability	Class 4 according to EN 12207					
Burglar resistant	Class RC2 according to EN 1627	-	-	Class RC2 acc. to EN 1627	-	-
Sash weight, max.	30/40/50/100/130 kg		50/100 kg	100/130 kg	100 kg	100 kg
Fitting	Side-hung, bottom-hung, top-hung or tilt-and-turn			Side-hung	Side-hung, top-hung or tilt-and-turn	Side-hung
Variants	Single-glazed window/element combined with opening and fixed windows. Meeting stile window.		Single-glazed window/element with opening and fixed windows	Single door, with or without top light and side light. Meeting stile door	Single-glazed window/element with opening and fixed windows	Single door, with or without top light and side light.

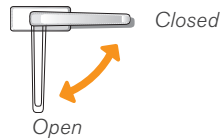
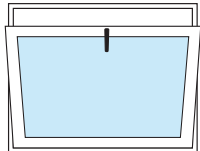
Fitting guide windows



Side-hung inward-opening window*

Closing fitting	Siegenia ALU 5200-D
Handle	16126 16131 Lockable Sapa 16439** Sapa 16439 with child safety latch 16441** Sapa 16438 Lockable**

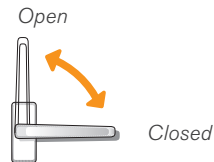
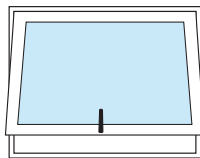
*Concealed hinges are available for 1086/1086 SX



Bottom-hung inward-opening window*

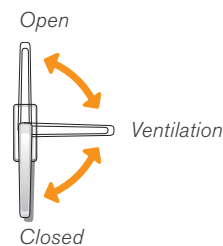
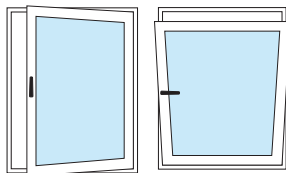
Closing fitting	Siegenia LM -K
Handle	16126 16131 Lockable Sapa 16439** Sapa 16439 with child safety latch 16441** Sapa 16438 Lockable**

*Concealed hinges are available for 1086/1086 SX



Top-hung inward-opening window

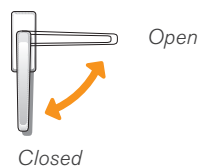
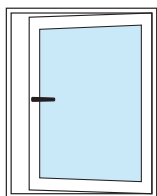
Closing fitting	Siegenia
Handle	16126 16131 Lockable Sapa 16439** Sapa 16439 with child safety latch 16441** Sapa 16438 Lockable**



Tilt-and-turn inward-opening window*

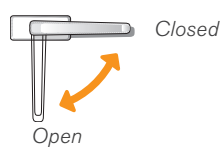
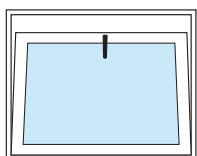
Closing fitting	Siegenia ALU 5200-TBT
Handle	16126 16131 Lockable Sapa 16439 Sapa 16439 with child safety latch 16441** Sapa 16438 Lockable

*Concealed hinges are available for 1086/1086 SX



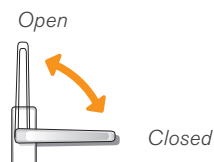
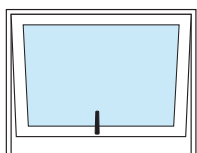
Side-hung outward-opening window

Closing fitting	Fix espagnolette
Handle	Sapa 16434 and 16435 Sapa 16434 and 16435 with child safety latch 16440 Sapa 16436 and 16437 Lockable.



Bottom-hung outward-opening window

Closing fitting	Fix espagnolette
Handle	Sapa 16435 Sapa 16435 with child safety latch 16440 Sapa 16437 Lockable

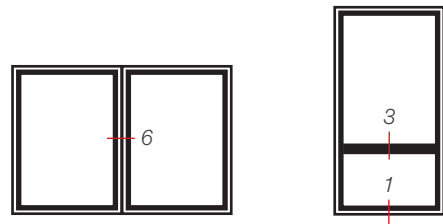
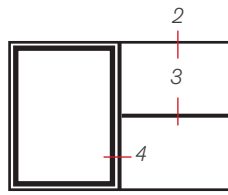
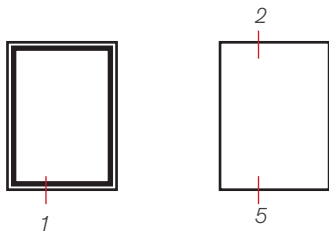


Top-hung outward-opening window

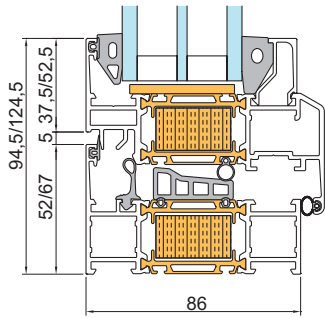
Closing fitting	Fix espagnolette
Handle	Sapa 16434 Sapa 16434 with child safety latch 16440 Sapa 16436 Lockable

** Not available for 1086 block window

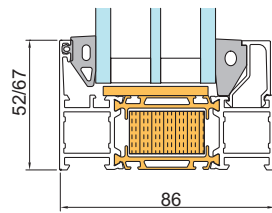
Drawings 1086, 1086 SX and 1086 PX, inward-opening



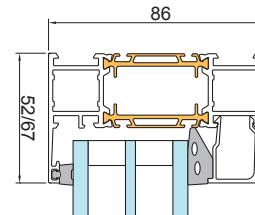
French window, inward-opening



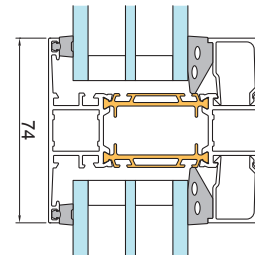
1 - Inward-opening window, frame/sash 1086 PX



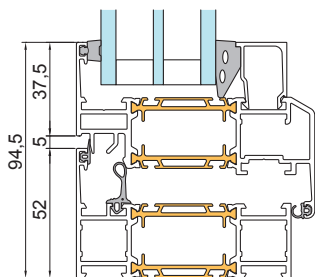
5 - Fixed window, frame 1086 PX



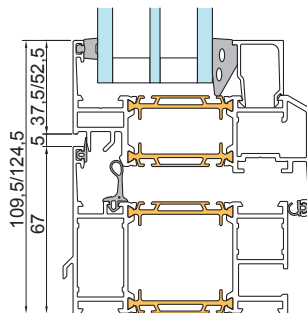
2 - Fixed window, frame 1086



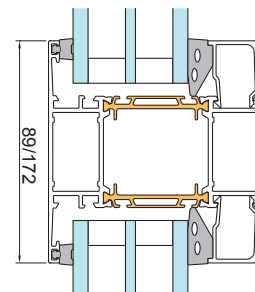
3 - Horizontal glazing bars 1086



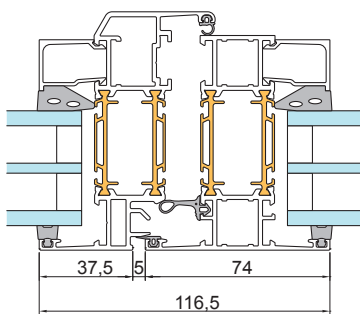
1 - Inward-opening window, frame/sash 1086



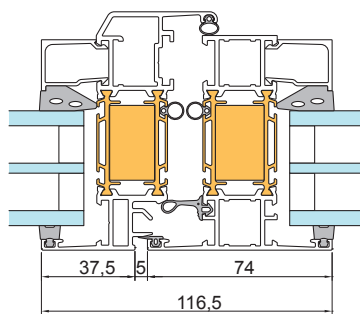
1 - Inward-opening window/ French window, frame/sash 1086



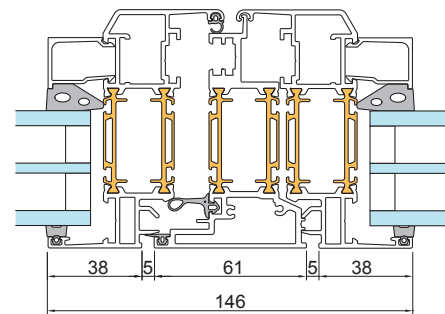
3 - Horizontal glazing bars 1086



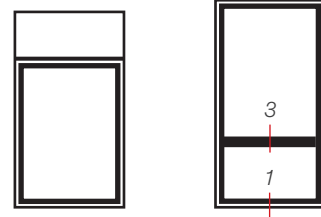
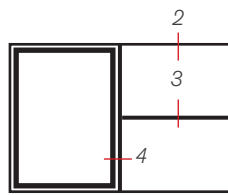
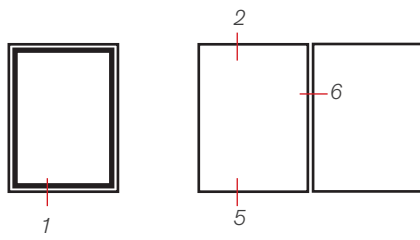
4 - Inward-opening window, frame/sash 1086



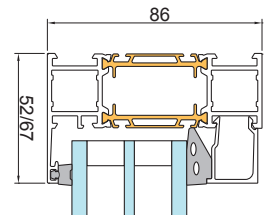
4 - Inward-opening window, frame/sash 1086 SX



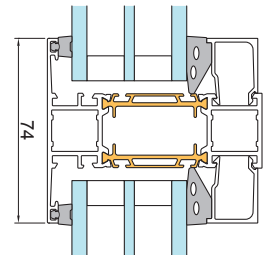
6 - Meeting stile window sash/sash 1086



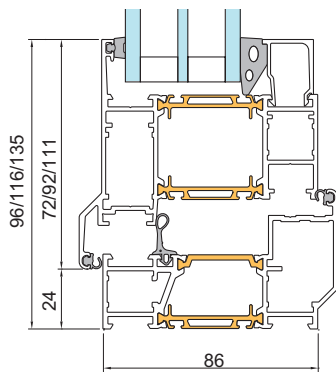
French window,
outward-opening



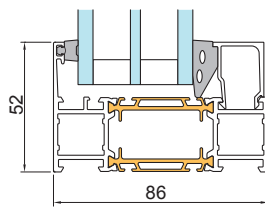
2 - Fixed window, frame 1086



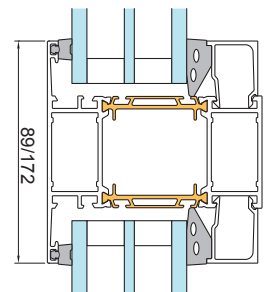
3 - Horizontal glazing bars 1086



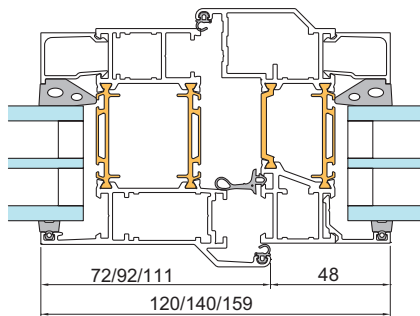
1 - Outward-opening window/French
window, frame/sash 1086



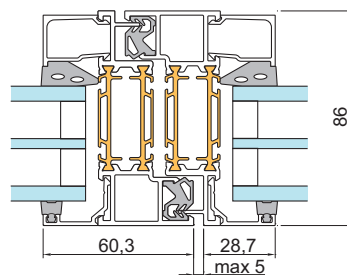
5 - Fixed window, frame
1086



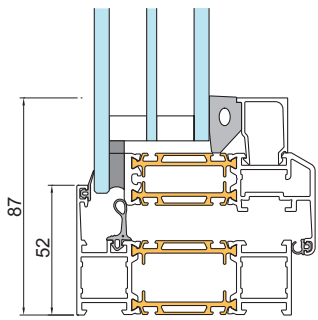
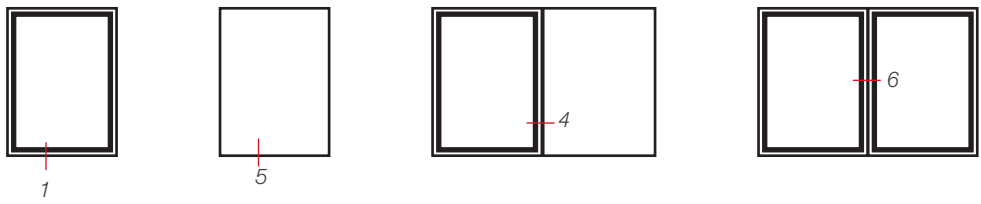
3 - Horizontal glazing bars 1086



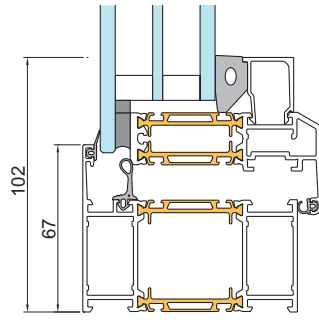
4 - Outward-opening window,
frame/sash 1086



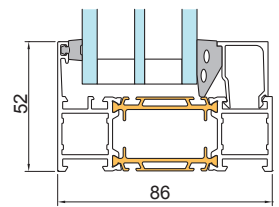
6 - Fixed window dividing profile 1086



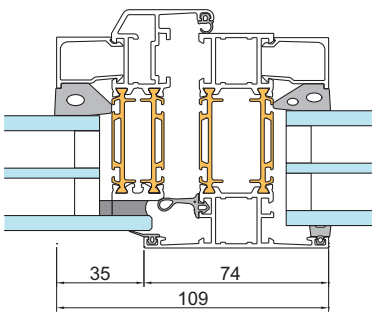
1 - Inward-opening window, frame/sash 1086



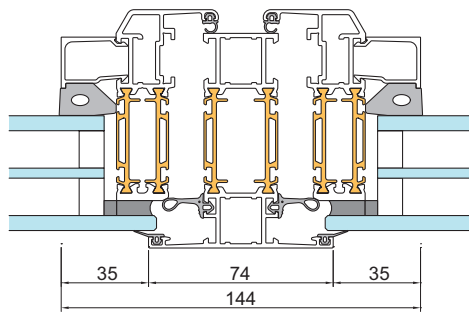
1 - Inward-opening window, frame/sash 1086



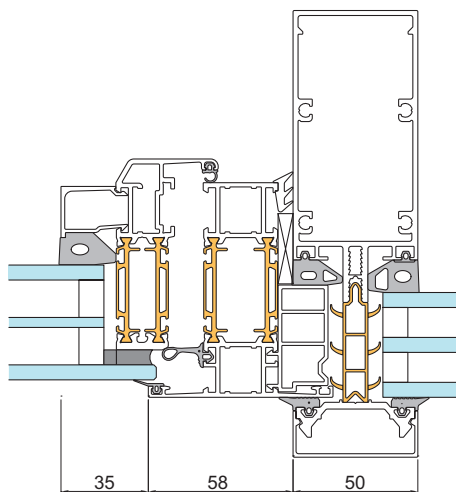
5 - Fixed window, frame 1086



4 - Inward-opening window, frame/sash 1086



6 - Window 1086



1086 Block window in facade 4150 SX

U-values, exemple

U-values glass (U_g) in W/m^2K	0,50	0,60	0,70	0,80	0,90	1,0
Window 1230 x 1480 mm, U-values in W/m^2K						
1086 fixed	0,90	0,93	1,0	1,1	1,2	1,3
1086 inward-opening	1,1	1,1	1,2	1,3	1,4	1,4
1086 outward-opening	1,1	1,2	1,2	1,3	1,4	1,5
1086 SX fixed	0,73	0,81	0,88	0,96	1,0	1,1
1086 SX inward-opening	0,90	0,96	1,0	1,1	1,2	1,2
1086 PX fixed	0,71	0,79				
1086 PX inward-opening	0,80					
1086 Block window, inward-opening	1,0	1,1	1,2	1,2	1,3	1,4
French window 1000 x 2100 mm, U-values in W/m^2K						
1086 inward-opening	1,1	1,2	1,3	1,3	1,4	1,5
1086 outward-opening	1,1	1,2	1,3	1,3	1,4	1,5
1086 SX inward-opening	0,89	0,97	1,0	1,1	1,2	1,3

Requirements: Table gives U-values for the complete window (U_w) in W/m^2K (incl. profiles/glass /spacer bars) according to EN 10077-1. The glass is separated by warm edge spacer bars. Profile section for opening windows (100 mm). Profile section for fixed window, see relevant detail.

Sound

Important factors in the acoustic insulation of a building against external noise are the construction of the outer wall, the acoustic insulation of the windows and any fresh air vents and the design of seals, etc.

By using 1086 SX with its high level of airtightness, combined with the right choice of glazing, it is possible to achieve

the required standard of acoustic insulation. Window 1086 SX has a sound reduction index of up to R_w 46 dB according to EN ISO 1040-2.

Choosing the right glass requires an analysis to find out what type of sound is perceived as disturbing.

Examples of sound reduction measured in dB with different types of glazing			
Sapa Window 1086 SX, inward-opening, 1230 x 1480 mm			
Glass R_w (C; C_{tr})	Base value	Highway and rail traffic	Street traffic
	R_w	$R_w + C$	$R_w + C_{tr}$
Glass T4-16-4-16-4. NSG Pilkington, 32 (-1; -5)	33	32	28
Glass T6-16-4-16-8,8. NSG Pilkington, 42 (-2; -7)	41	39	34
Glass TS 50/51. SGG Emmaboda Glas, 50 (-2; -6)	45	44	40
Sapa Window 1086 SX, fixed, 1230 x 1480 mm			
Glass T4-16-4-16-4. NSG Pilkington, 32 (-1; -5)	32	30	26
Glass T6-16-4-16-8,8. NSG Pilkington, 42 (-2; -7)	42	40	36
Glass TS 50/51. SGG Emmaboda Glas, 50 (-2; -6)	46	44	39

Requirements: Table is based on tests carried out by SP Technical Research Institute of Sweden (dimension 1230 x 1480 mm) according to EN ISO 10140-2 and EN ISO 717-1.







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