

# WICLINE 65

## Aluminium windows



# » New generation of aluminium windows and patio doors

Designed to meet the needs of a new generation of buildings intended to limit energy consumption, WICLINE 65 windows and patio doors feature excellent thermal, acoustic and dimensional properties.

The different options available are compatible with each other and allow a multitude of applications and thermal configurations in order to meet buildings' energy performance requirements.

WICLINE 65 presents solutions with visible or concealed opening frame, allows installation and thermal insulation from the outside and includes three different levels of thermal insulation.

With this new sleekly designed range, WICONA has also focused on eco-design: the WICLINE 65 casement window and patio door system includes controlled glue-injection corner cleats to reduce consumption by 75% compared to a traditional cleat.





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- 1 | Lievin (Pas-de-Calais), France  
Architect: Agence Atlante Architectes - Company Havet - Photo: J.P. Duplan
- 2 | Matière grise (Ille-et-Vilaine), France  
Architect: Anthony Rio, Agence Unité - Company Aluvair - Photo: Philippe Ruault
- 3 | Armor Chantenay (Loire-Atlantique), France  
Architect: Atelier Grether - Company: Aluvair - Photo: Xavier Benony
- 4 | UP Luxeuil, France  
Archi + Tech: Company Simard - Photo: Stephan Girard

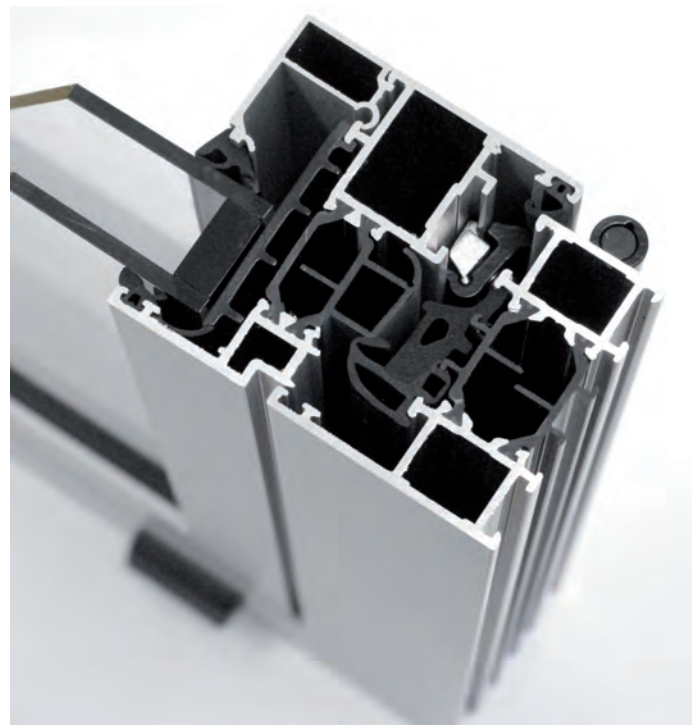
» Visible opening frame  
WICLINE 65



**Key features**

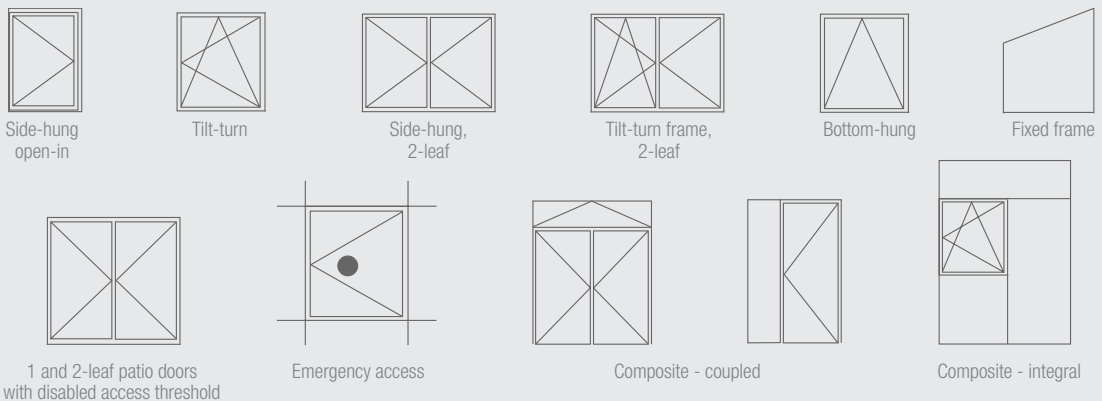
- 65 mm frame with double chamber thermal break
  - 75 mm frame with triple chamber thermal break
  - Maximum size: L 1,600 mm - H 2,500 mm
  - Maximum weight per leaf:
    - 130 kg
    - 160 kg with concealed fittings
  - Grade 4 anti-corrosion hardware
  - Glazing infill: 11 to 59 mm
  - Flat-faced and chamfered designs for the opening frame
  - Add-on jamb lining 100 to 160 mm
  - Mitred assembly by crimping, pinning or screwing (stainless steel conical screw)
  - Symmetrical corner cleats with controlled glue injection
  - Expansion joint profiles
  - Concealed drainage on the transom
  - Available in dual colour
  - Initial type testing available for window CE marking
  - Conforms to French standard DTU 36.5
  - Patio door with disabled access threshold
- Available in 3 thermal versions: WICLINE 65, WICLINE 65 HI and WICLINE 65 HI plus

Openings: Open-in, turn/tilt, tilt/turn, bottom-hung, projecting top-hung, side-hung open-out and coming soon : pivot, tilt-slide and concealed fittings.



**WICLINE 65 HI visible opening frame**

**Applications**





## WICLINE 65

- In the chamfered option the glazing beads are identical for fixed and opening-frame
- Concealed screw finishing profile
- EPDM central gasket

### Performance

**Thermal** (1-leaf patio door L 1,250 x H 2,180 mm)

- $U_w = 1.6 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.0 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $Tl = 77 \%$

### Acoustic

- $RA_{tr} = 35, 38 \text{ et } 40 \text{ dB}$  (1 and 2 leaf)

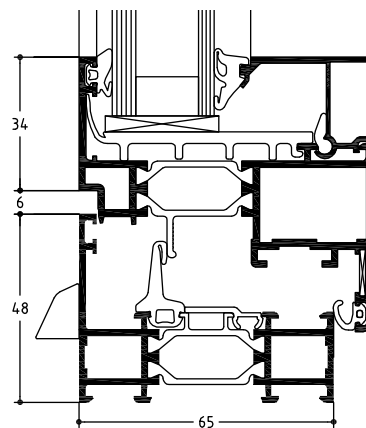
### Weather (AEV):

- A\*4 – E\*9A – V\*C4 (1-leaf window L 1,400 x H 2,000 mm)
- 1-leaf side-hung open

## WICLINE 65



1-leaf side-hung open-in



Vertical cross-section

**WICLINE 65HI - High insulation**

- New thermal break design (WICONA patent)
- PA 6.6 polyamide bar acting as thermal break with double chambers on outer frame and triple chambers on opening frame
- Bi-component central gasket for excellent insulation

**Performance**

**Thermal** (1-leaf balcony doors L 1,250 x H 2,180 mm)

- $U_w = 1.4 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.0 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $Tl = 77 \%$

**Acoustic**

- $RA_{tr} = 35, 41$  and  $43 \text{ dB}$  (1 leaf)

**Weather (AEV):**

- A\*4 – E\*1050 – V\*C5 (1-leaf window L 1,550 x H 2,300 mm)
- A\*4 – E\*9A – V\*C4 (2-leaf window L 2,656 x H 2,300 mm)

**WICLINE 65HI plus - Ultra-high insulation**

- PA 6.6 polyamide bar acting as thermal break with double chambers on outer frame and triple chambers on opening frame
- Foam strip on 4 sides of opening frame for very high thermal insulation
- Thermal gasket lip on opening frame

**Performance**

**Thermal** (1-leaf balcony doors L 1,250 x H 2,180 mm)

- $U_w = 1.3 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.0 \text{ W/m}^2\cdot\text{K}$ )
- $U_w = 0.9 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 0.5 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $Tl = 77 \%$

**Acoustic**

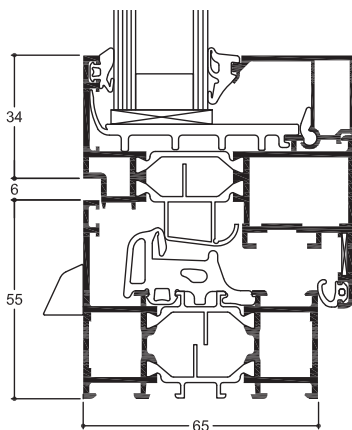
- $RA_{tr} = 35, 41$  and  $43 \text{ dB}$  (1 leaf)

**Weather (AEV):**

- A\*4 – E\*1050 – V\*C5 (1-leaf window L 1,550 x H 2,300 mm)
- A\*4 – E\*9A – V\*C4 (2-leaf window L 2,656 x H 2,300 mm)



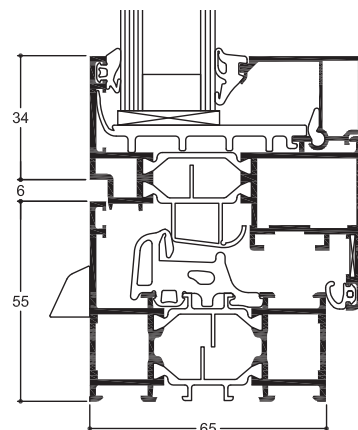
1-leaf side-hung open-in



Vertical cross-section



1-leaf side-hung open-in



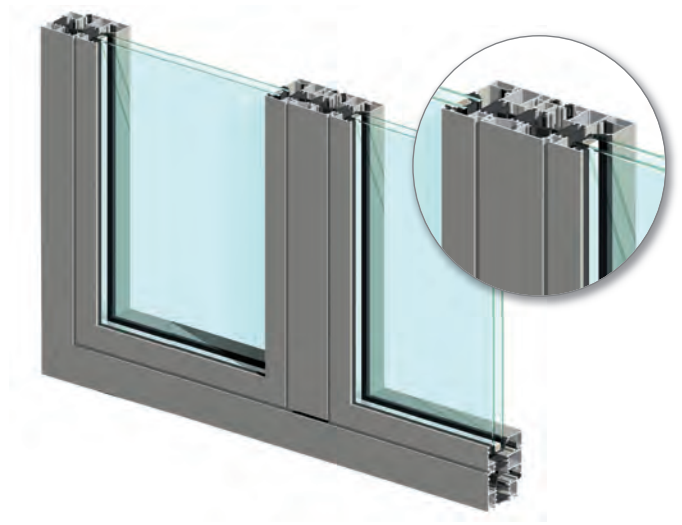
Vertical cross-section

### Central meeting rebate

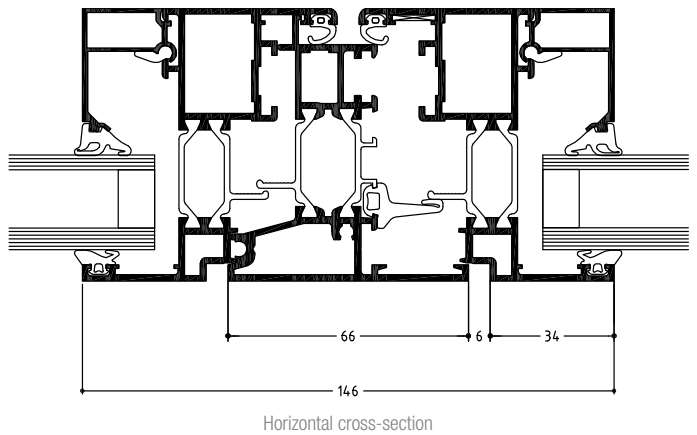
Add-on rebate solution for 2-leaf window and patio doors with visible opening frame.

Three thermal performance options: WICLINE 65, WICLINE65 Hi and WICLINE 65 Hi Plus.

## WICLINE 65



### Central meeting rebate



1 | Armor Chantenay (Loire Atlantique), France  
Architect: Atelier Grether - Company: Aluvair - Photo : Xavier Benony

2 | Armor Chantenay (Loire Atlantique), France  
Architect: Atelier Grether - Company: Aluvair - Photo : DR

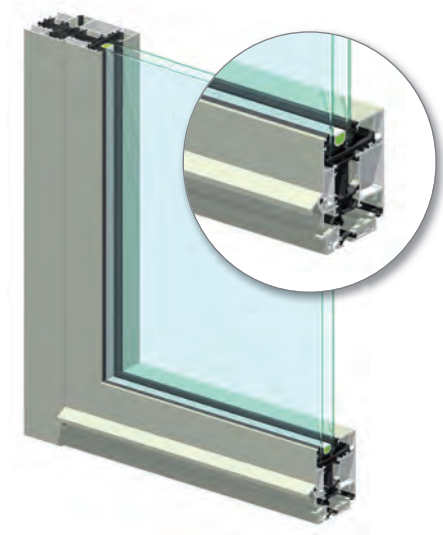
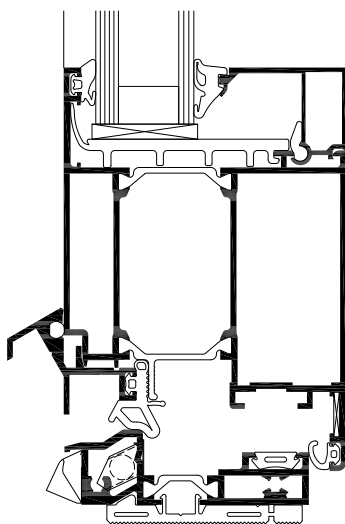
3 | Energia, Paris, France  
Architect: Ogić/DTACC - Company: Face Ile de France - Photo: J.P. Lagarde



**Disabled access threshold**

Patio doors with visible opening frame option to meet disabled access needs.

- Threshold for disabled access: 20 mm with thermal break
- Water classification: 2-leaf patio door E\*7A
- Operating force: class 1 (<10kg)
- Weather tightness conforms to French standard DTU 36.5:
  - drained threshold
  - water run-off integrated in threshold
  - support for positioning and fixing of the threshold
- Assembly: straight cut
- Fixing: double screw with sealing piece
- Opening: 1 and 2-leaf patio door, inward opening with lock option
- Glazing infill: 11 to 59 mm
- Flat-faced and chamfered opening-frame designs

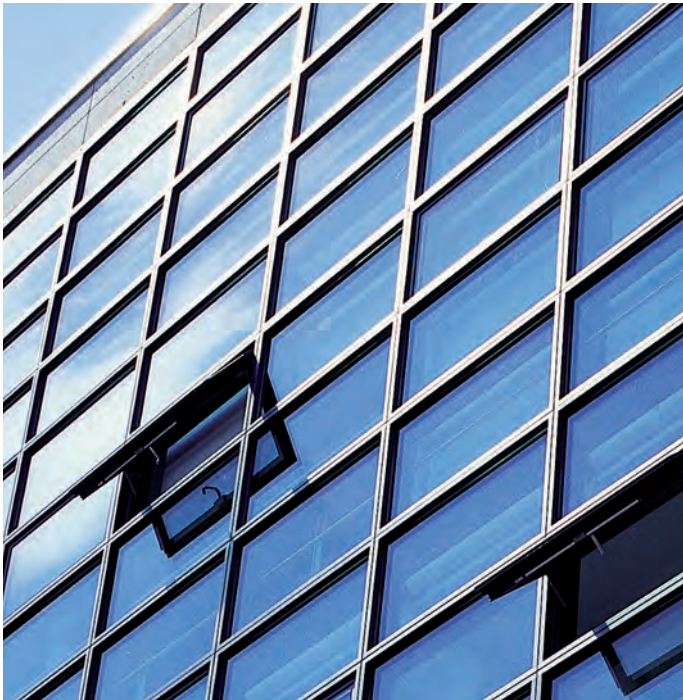
**Threshold for disabled access**

Vertical cross-section



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## WICLINE 65



☛ Botschafts - und Verbandsgebäude, Berlin, Germany  
Architect: Michael Wilford - Company: MBM Metallbau Dresden GmbH - Photo: WICONA Rights

### Projecting top-hung open outward

- Central gasket on opening frame to enhance thermal and acoustic properties
- Rebate adapter to allow opening frame adjustment
- Corner cleats with controlled glue injection

### Performance

#### Thermal (1-leaf frame L 1,250 x H 1,480 mm)

- $U_w = 1.6 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.1 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $T_I = 72 \%$

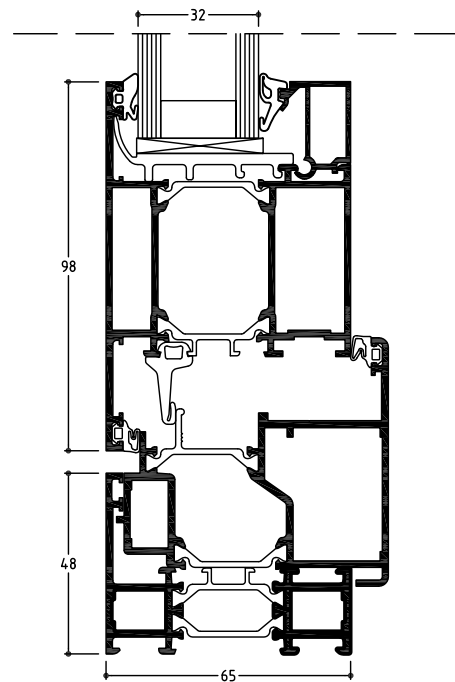
#### Acoustic

- $RA_{tr} = 39 \text{ dB}$

#### Weather (AEV):

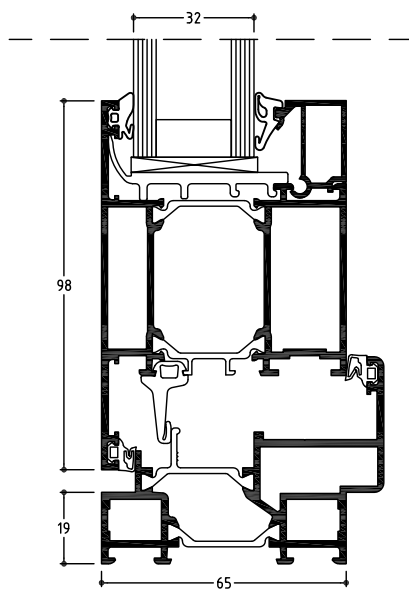
- A\*4 – E\*750 – V\*C4
- Maximum weight per leaf: 150 kg
- Minimum opening size: L 600 x H 500 mm
- Maximum opening size: L 2,000 x H 1,500 mm
- Projecting top-hung open-outward, composite

### Projecting top-hung open outward, composition



Vertical cross-section

### Projecting top-hung open outward



Vertical cross-section



**Butt hinged outward opening and projecting opening frame**

- Butt hinged outward and projecting opening
- Embedded gear box
- Fixed lights without adapter frame

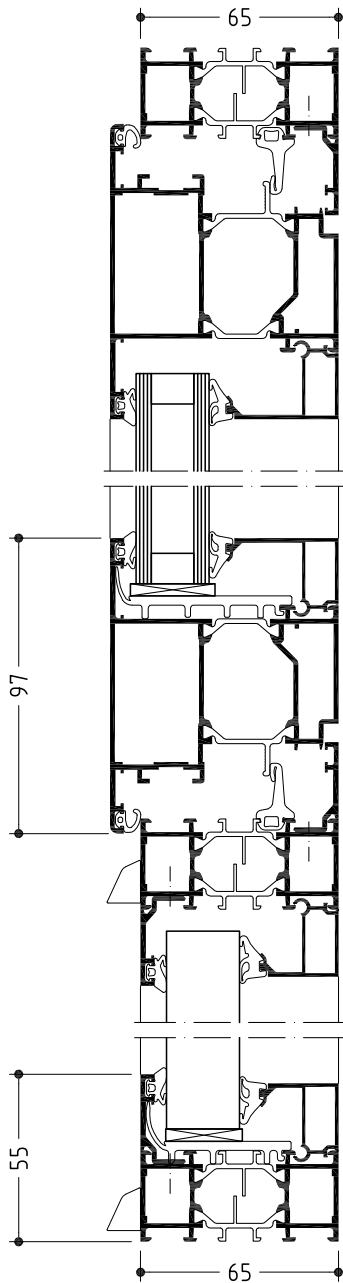
**Acoustic performance**

- RA, tr = 39 dB

**Weather (AEV):**

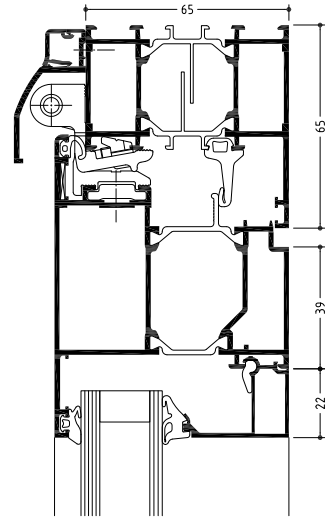
- \*4-E\*9A-V\*C4

**Outward opening with fixed lights**

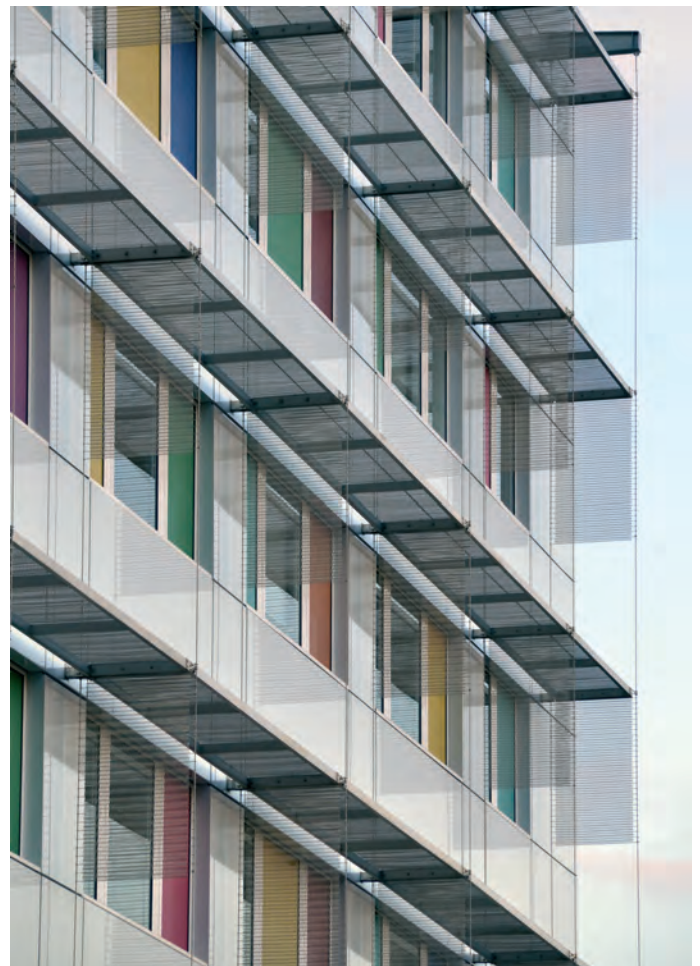


Vertical cross-section

**Projecting opening**



Vertical cross-section



• Lievin (Pas-de-Calais), France  
Architect: Agence Atlante Architectes - Company Havet - Photo: J.P. Duplan

» WICLINE 65 concealed  
opening frame

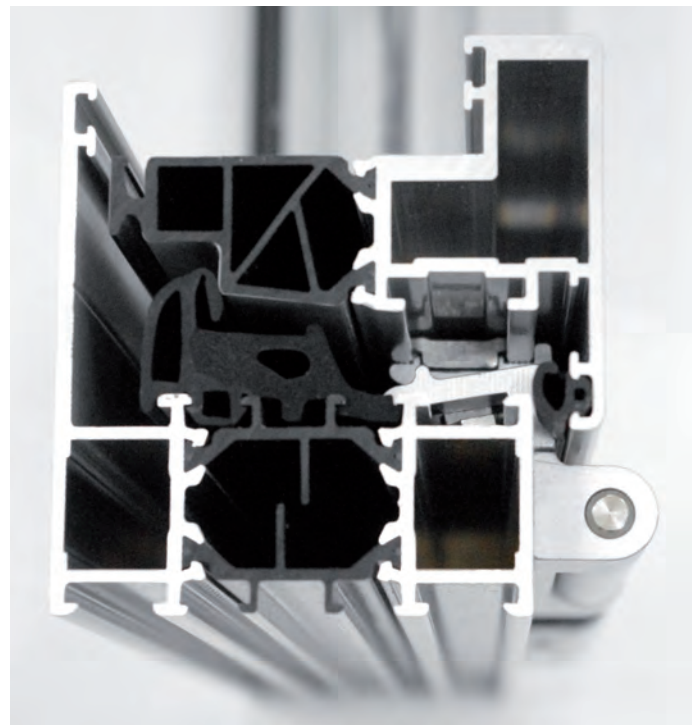




**Key features**

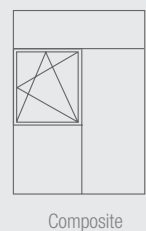
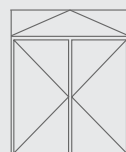
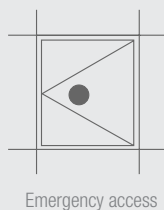
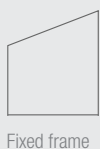
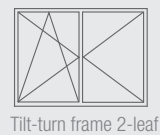
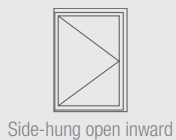
- Outer frame 65 mm
- Opening frame 75 mm
- Same outer frame sight-lines for 1-leaf and 2-leaf central rebate
- Maximum size: L 1,600 mm – H 2,250 mm
- Maximum weight per leaf:
  - 130 kg with concealed fittings and concealed hinge option
- Grade 4 anti-corrosion hardware
- Flat-faced and rounded opening frame designs
- Add-on jamb lining from 100 to 160 mm
- Mitred assembly by crimping, pinning or screwing (stainless steel conical screw)
- Symmetrical corner cleats with controlled glue injection
- Expansion joint profiles
- Available in dual colour
- Initial type testing available for window CE marking
- Conforms to French standard DTU 36.5

Available in 2 thermal versions: WICLINE 65 and 65 WICLINE HI.



**WICLINE 65 HI concealed sash**

**Applications**



## WICLINE 65

### WICLINE 65

- Opening frame with thermal break for a glazing infill of 24 mm, 32 mm and 44 mm
- Thermal break: PA 6.6 polyamide bar with double chamber on outer frame and single chamber on opening frame
- Central weather barrier integrated with the polyamide bar on the outer frame (no addition of gasket required on outer frame)
- Three identical multifunction gaskets (available in black and grey), supplied pre-mounted on opening frame (optional)
- Concealed or visible drainage on outer frame and transom
- Optional frame with integrated add-on jamb lining for 100 mm and 120 mm
- Flat face and rounded opening frame designs

### Performance

#### Thermal (1-leaf patio door L 1,250 x H 2,180 mm)

- $U_w = 1.5 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.0 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $T_I = 85 \%$

#### Acoustic

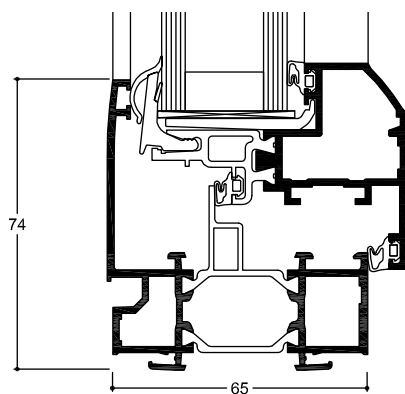
- $RA_{tr} = 35, 38 \text{ et } 40 \text{ dB}$

#### Weather (AEV):

- A\*4 – E\*900 – V\*C4 (1-leaf window L 1,400 x H 1,600 mm)
- A\*4 – E\*9A – V\*C4 (2-leaf window L 1,400 x H 1,600 mm)



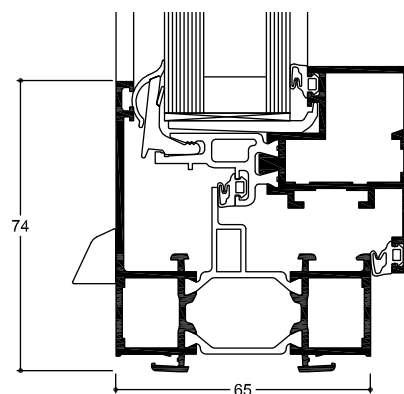
Concealed opening frame, visible drainage, flat face design



Vertical cross-section



Concealed opening frame, concealed drainage, rounded design



Vertical cross-section



**WICLINE 65HI - High insulation**

- Opening frame with thermal break for a glazing infill of 20 to 36 mm
- Thermal break: PA 6.6 polyamide bar with double chamber on outer frame and quadruple chamber on opening frame
- Visible drainage
- Flat faced opening frame designs
- Increased wall thickness on opening frame for greater inertia
- Central bi-component gasket for high insulation
- Product compatible with visible opening frame versions of WICLINE 65, WICLINE 65 HI and WICLINE HI 65 plus
- Curtain walling integration

**Performance**

**Thermal** (1-leaf patio door L 1,250 x H 2,180 mm)

- $U_w = 1.3 \text{ W/m}^2\cdot\text{K}$  (with  $U_g = 1.0 \text{ W/m}^2\cdot\text{K}$ )
- $0.15 < S_w < 0.50$  to glazing solar factor  $S_g$
- $Tl = 85 \%$

**Acoustic**

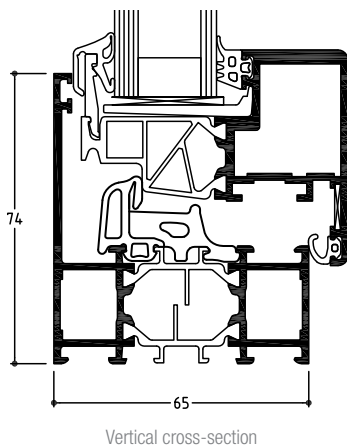
- $RA_{tr} = 35, 38 \text{ et } 40 \text{ dB}$

**Weather (AEV):**

- A\*4 – E\*750 – V\*C5 (1-leaf window L 1,250 x H 1,750 mm)
- A\*4 – E\*750 – V\*C5 (1-leaf window L 1,250 x H 2,250 mm)



**Concealed opening frame, visible drainage**



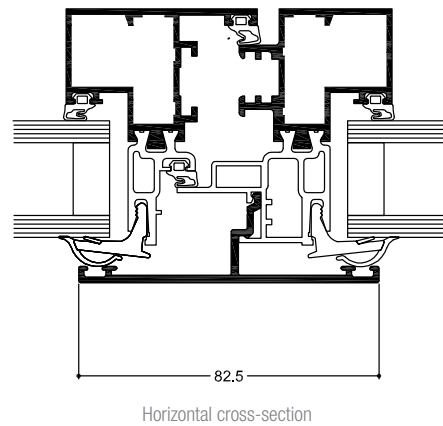
## WICLINE 65



### Central rebate

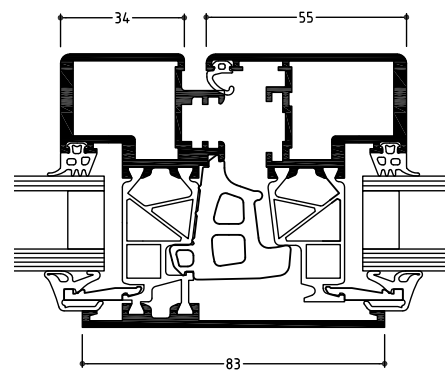
Solution with integrated central rebates for 2-leaf patio door with concealed opening frame.

#### Reduced central rebate 2-leaf WICLINE 65



Horizontal cross-section

#### Reduced central rebate 2-leaf WICLINE 65 HI



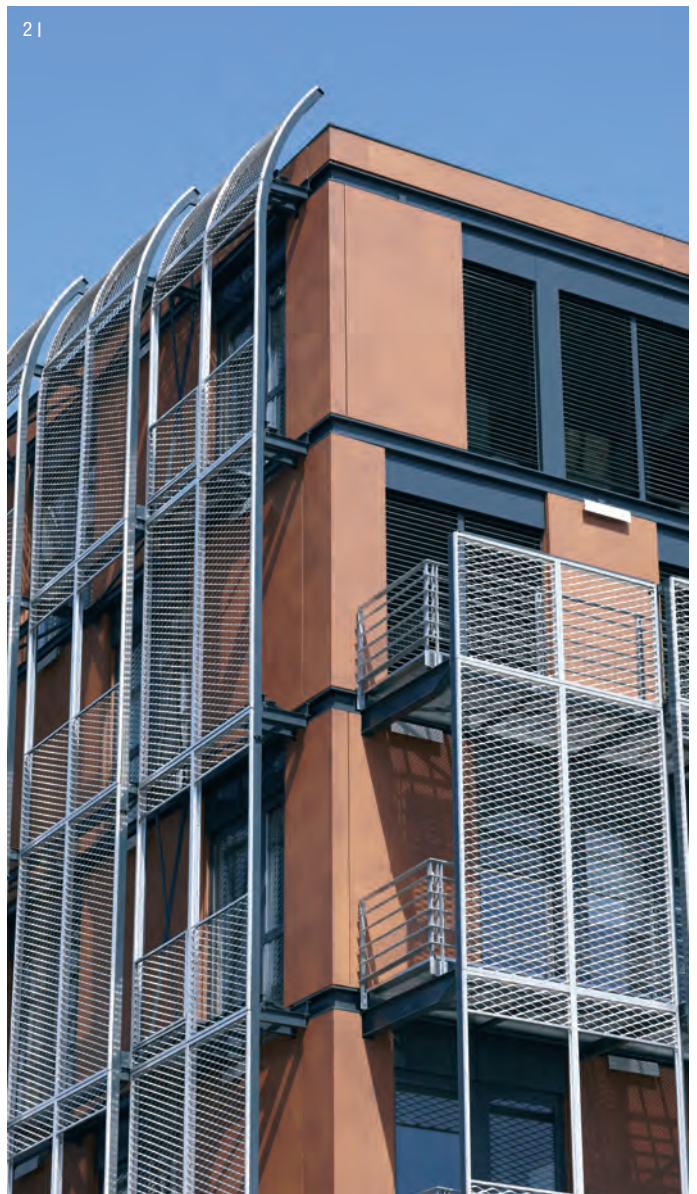
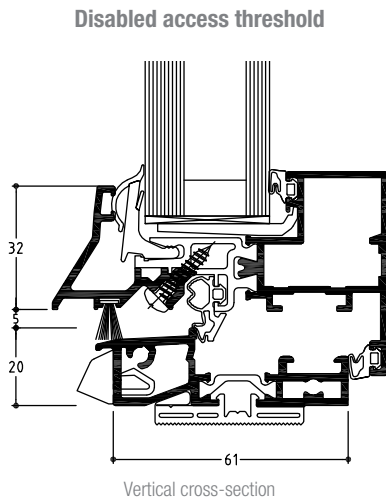
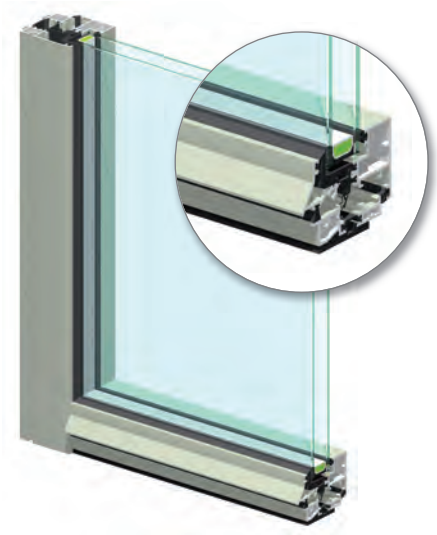
Horizontal cross-section

- 1 | Armor Chantenay (Loire-Atlantique), France  
Architect: Atelier Grether - Company: Aluvoir - Photo: Xavier Benony
- 2 | Atrium Gerland, Lyon, France  
Architect: Agence d'architecture Soho Aurea, Lyon  
Company: Amalgame - Photo: Gilles Aymard

**Disabled access threshold**

Patio doors with concealed opening frame option to meet disabled access needs.

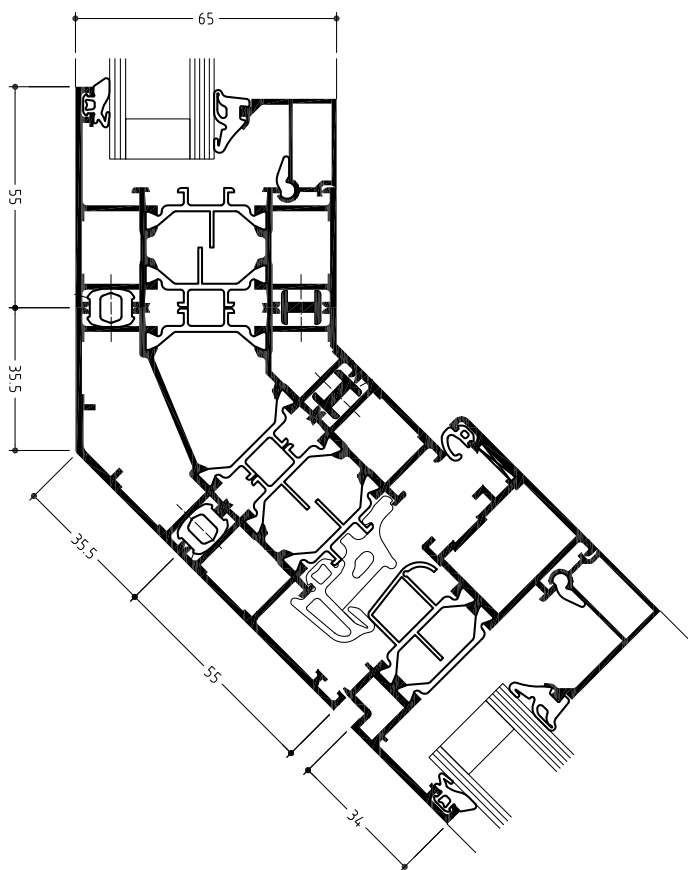
- Threshold for disabled access: 20 mm thermal break
- Water classification: 2-leaf patio door 5A
- Operating force: class 1 (<10kg)
- Weather tightness conforms to French standard DTU 36.5:
  - drainage of the threshold
  - water run-off integrated in threshold
  - support for positioning and fixing of the threshold
- Assembly: straight cut
- Fixing: double screw with weather seal
- Opening: 1 and 2-leaf patio doors, inward opening
- Glazing infill: 24 mm, 32 mm or 44 mm
- Flat faced and rounded opening frame designs





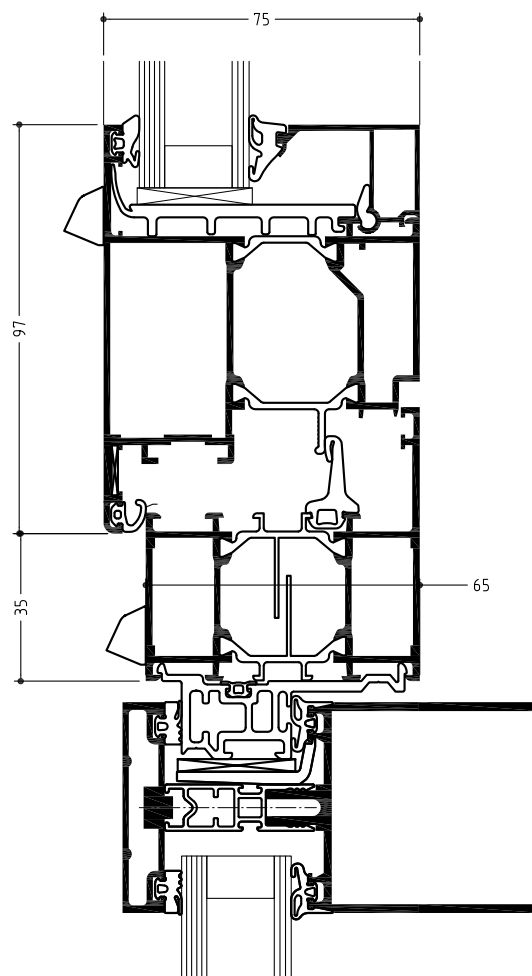
# » Common elements: visible and concealed opening frames

Variable angle WICLINE 65



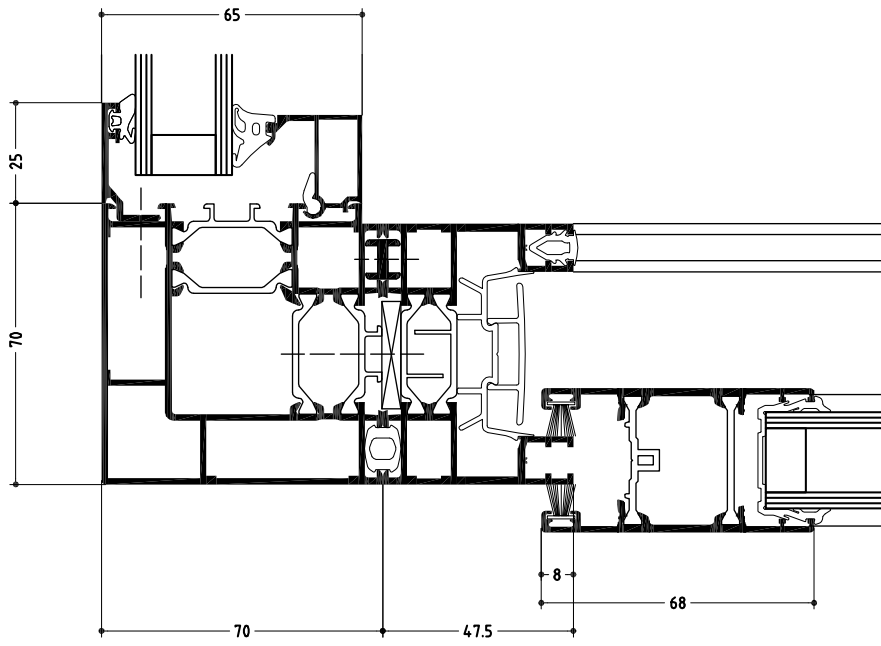
Vertical cross-section

WICLINE 65 integrated in to curtain wall



Vertical cross-section

**Compatibility 65 mm range  
WICLINE 65 window and sliding WICSLIDE 65**



Horizontal cross-section

**Face-mounted handles**



**Square drive handles**



# WICONA®

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