

Press release

2020-06-16

LIXA – Architecture focused on circular economy with low carbon facades

The construction industry is facing the most comprehensive and sustainable urban developments - both national and international. Buildings need high environmental- and architectural standards to support and ensure a circular economy. The LIXA office complex in Warsaw, Poland, will be part of the dynamic and sustainable development of the country's capital once it is completed in 2022. WICONA has supplied facades- windows- and doors.



LIXA is located in the attractive Warsaw district Wola. The main part of the project will be a multifunctional complex of three buildings that are linked together by a spacious green garden courtyard. Huge glass facades made of at least 75 % recycled aluminium (post-consumer scrap) is covering the building. This means, products that has reached its end of life, has been brought back into the loop by being recycled and re-used into the building. This not only saves energy - It also generates a far smaller impact on the environment.

The facade made of the aluminium alloy Hydro CIRCAL has a carbon footprint among the lowest in the world: 2.3 kg CO₂ per kilo of aluminium. WICONA will supply 120 tons to the project. *“By offering facades with a minimal carbon footprint, we can meet the increased demands on the market for sustainable solutions.”* says Hubert Wiśniewski, Commercial Director for WICONA Poland.

Furthermore, LIXA will offer flexible offices with maximum access to daylight and natural ventilation. Floors with spacious working places, a green common terrace, a courtyard filled with sunlight surrounded by a relaxing atmosphere for creative meetings and working spaces. This as well as various service facilities as restaurants, pre-school and shops. There will also be a charging station for electric vehicles available.

“LIXA is the third largest complex under construction in Warsaw, it will not only become a working place – It will be a place to spend time, everyday” Says Michał Chrzanowski, HRA Architects. As the building will receive the certification BREEAM Excellent, LIXA will stand out as a durable and climate smart building. *“The applied and well thought out system solutions will allow the facility to reduce energy demands in the future”* says Michał Chrzanowski.

The A-class building will be completed in 2022 and cover an area of 65,000 sq m. The first part will be ready during the summer of 2020, the second in 2021, and the third in 2022. Summing-up; Impressive LIXA office complex will be an outstanding low carbon- and sustainable building in the heart of Warsaw.



Architect: HRA Architects

Metal builder: Firma Widok Sp. z o. o.

General Contractor: Porr

WICONA solutions: Facade WICTEC 50 and WICTEC 50FP. Windows: WICLINE 75 evo and WICLINE 75 evo with ventilation flap. Doors: WICSTYLE 75 evo.



Hydro CIRCAL®

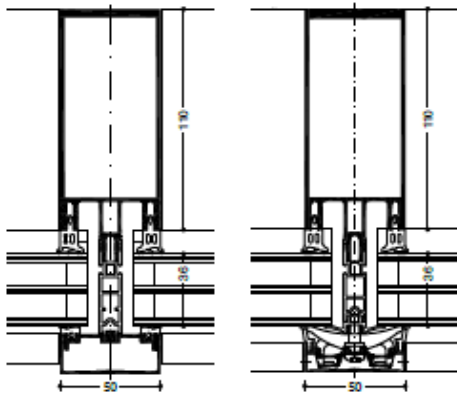
Hydro CIRCAL is a range of aluminium products made with recycled, consumer scrap. The higher the recycled content, the better it is for the environment. Hydro CIRCAL is produced by the aluminium company Hydro, who is the owner of the brand WICONA. Hydro CIRCAL 75R contains a minimum of 75% post-consumer scrap. The production process is fully traceable, and the product is certified by an independent third party. (DNV GL) Hydro can guarantee a CO2 footprint below 2.3 kg with Hydro CIRCAL 75R.

WICONA

» WICTEC 50 Stick system curtain wall



WICTEC 50 is the basic version of the stick system curtain wall, with an extra-narrow face width of 50 mm, inside and outside. The unique flexibility is demonstrated by the various system variants and enhancement options, all of which are feasible with minor additions to the base system and without compromising on appearance.



System test results / CE product pass in accordance with DIN EN 13830

| | |
|---------------------------|--|
| Air permeability: | Class AE |
| Water tightness: | RE 1200 |
| Resistance to wind load: | 2000 / -3200 Pa, security 3000 / -4800 Pa |
| Sound insulation: | $R_w (C; C_w) = 47 (-1; -4)$ dB |
| Impact resistance: | Class E5 / I5 |
| Burglar resistance: | RC1N, RC2N, RC2, RC3 |
| Bullet resistance: | FB4 |
| Quality assurance: | Certified according to ISO 9001:2008 |
| Environmental management: | Certified according to ISO 14001 |

Technical performance:

| | |
|---------------------|---|
| System width: | 50 mm |
| Profile depth: | 50 mm to 260 mm |
| Thermal insulation: | U_i value up to 0.65 W/(m ² K) |
| Infill thickness: | 3 mm to 63 mm |
| Glass weight: | up to 6.0 kN |
| Polygon façade: | up to ±45° (per side = 90° angle) |
| Roof pitch: | up to 10° |

System technology:

- Ideal for vertical and polygon façades, sloped glazing and spatial structures
- Individual design possibilities, thanks to a wide range of aesthetic profiles
- Alternative: industrial design for the appearance of steel profiles
- Reliable glass load transfer (up to 6.0 kN), with improved transom-joint technology
- Overlapping and secure drainage at the cruciform, without mechanical mullion processing, ensures tried-and-tested impermeability
- Consistent internal gasket appearance
- Wide selection of structural profiles, with optional integral reinforcements, ensuring optimal performance
- External glazing, with visible or concealed fixings
- Extensive solutions for framework junctions and conservatories

Additional options in identical design and technical set-up:

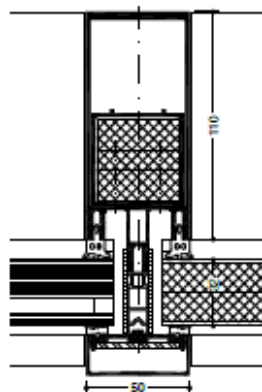
- Passive house curtain wall (fit Rosenhelm)
- SG-design (Integrated pressure profile)
- Structural glazing curtain wall
- Add-on curtain wall for steel and wood
- Integrated sun protection
- Fire protection curtain wall
- Quick glazing
- Straight cut
- Heavy load system



WICONA

» WICTEC 50FP / WICTEC 60FP Fire protection curtain wall

WICTEC 50FP and WICTEC 60FP fire protection curtain wall provides performance when needed in areas such as stairwells, extensions, hallways and glazed roofs. In accordance with classifications G30 / F30 (DIN) and EI 30 / EI 60 (EN). All architectural concepts of WICTEC 50 and WICTEC 60 can be realised and adapted to provide the necessary fire protection requirements, as well as being seamlessly integrated into standard façades where fire protection is not required.



System test results / CE product pass in accordance with DIN EN 13830

| | |
|---------------------------|---|
| Air permeability: | Class AE |
| Water tightness: | RE 1200 |
| Resistance to wind load: | 2000 / -3200, safety 3000 / -4800 Pa |
| Impact resistance: | Class E5 / I5 |
| German approval: | For vertical curtain wall and overhead glazing in accordance with F30 and G30 |
| Quality assurance: | Certified according to ISO 9001:2008 |
| Environmental management: | Certified according to ISO 14001 |

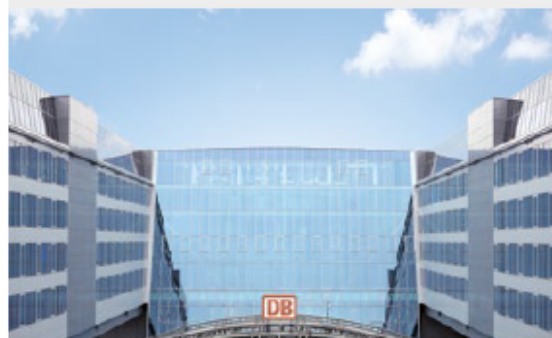


Technical performance:

| | |
|--------------------------|---|
| System width: | 50 mm / 60 mm |
| Basic system: | WICTEC 50 / WICTEC 60 |
| Fire protection classes: | G30 / F30 (DIN) EI 30 / EI 60 (EN) |
| Infill dimensions: | Portrait format up to 1800 mm x 3000 mm Landscape format up to 2400 mm x 1400 mm |
| Height of façade: | up to 5000 mm |
| Polygon façade: | up to ± 5° |
| Infill thickness: | F30 / G30: up to 38 mm, EI 30 / EI 60: up to 57 mm |

System technology:

- For vertical and overhead glazing (fire protection up to 0° inclination)
- Slim sight lines: 50 mm or 60 mm
- Compatible and structurally identical with WICTEC 50 and WICTEC 60 standard systems
- Infills: glass or panel
- Extended freedom in design with large infill dimensions possible
- Suitable for internal and external applications
- The WICONA fire protection parapet, in resistance class W90, offers the appropriate solution to prevent fire flashover with standard façades.
- Can also be combined with WICSTYLE 77FP fire protection doors and WICLINE 75FP fire protection windows

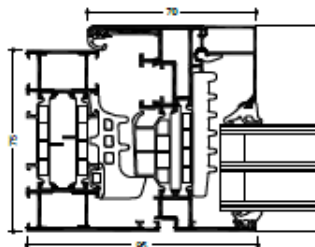


WICONA

» WICLINE 75 evo

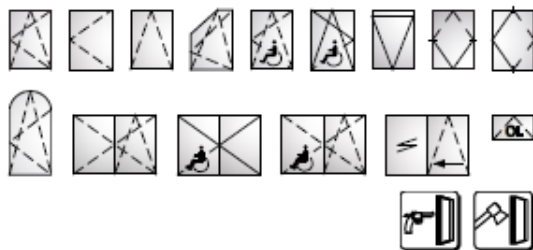


With 75 mm profile depth, WICLINE 75 evo features the highest thermal insulation properties and structural characteristics. With its superior technical performance this aluminium window is attuned to all architectural requirements of the future. In Switzerland WICLINE 75 evo has been the first metal window to be certified as Minergle-P module window.



System test results / CE product pass in accordance with EN 14351-1:2006+A2:2016

| | |
|--|--|
| Air permeability: | Class 4 |
| Water tightness: | E900 |
| Resistance to wind load: | Class C5 / B5 |
| Acoustic performance: | $R_w (C; C_w) = 47 (-1; -4)$ dB |
| Operating forces: | Class 1 |
| Load bearing capacity of safety devices: | Fulfilled |
| Mechanical strength: | Class 4 |
| Repeated opening / closing: | Class 3 (20000 cycles) |
| Corrosion resistance of the fittings: | Class 5 |
| Burglar resistance: | RC1N, RC2N, RC2, RC3 |
| Bullet resistance: | FB4 S, FB4 NS (depending on the profile combination) |
| Quality assurance: | Certified according to ISO 9001:2008 |
| Environmental management: | Certified according to ISO 14001 |



Technical performance:

Profile technology:

- High insulation multi-chamber system in symmetric design, quality assured thermal insulator connection
- Patented corner and butt joint connection technology for high rigidity of frames and sashes
- Infill thickness up to 69 mm

Thermal insulation:

- U_i values: up to 1.2 W/(m²K)
- U_w values: up to 0.87 W/(m²K) for sashes, up to 0.72 W/(m²K) for fixed glazing, with triple glazing
- Certified as Minergle-P module U_w 0.8 W/(m²K)

Gasket concept:

- Central gasket in three variants:
 - Circumferential installation without corner pieces
 - With formed corners, no adhesive required
 - Corner vulcanised frames

Hardware:

- Heavy duty system hardware with:
 - Visible hinges, powder coating or anodisation in all colours
 - Concealed hinges with integrated end position damping, opening angle max. 105°
- Sash weight:
 - Concealed hinges: up to 160 kg
 - Visible hinges: up to 200 kg
 - On demand: up to 300 kg
- Sash sizes (w x h): 1700 mm x 2500 mm, fanlight 2500 mm x 1700 mm
- Optional opening limiter

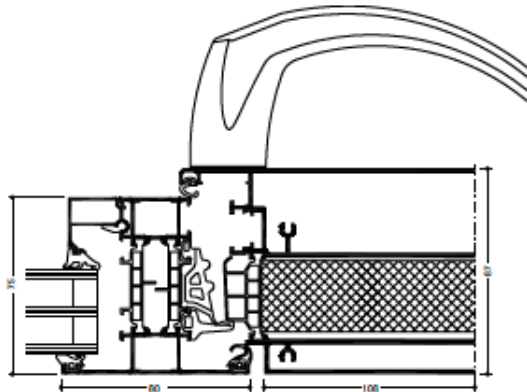
Additional designs:

- Concealed sash
- Classic design
- Integration frame for stick façades
- Fanlight with hand lever, cranked rod or motor
- Pivot window, horizontal or vertical
- Parallel sliding window, with or without force operation
- Italian style window
- Top-hung window
- Window doors with barrier free threshold, single or double casement door, inward and outward opening

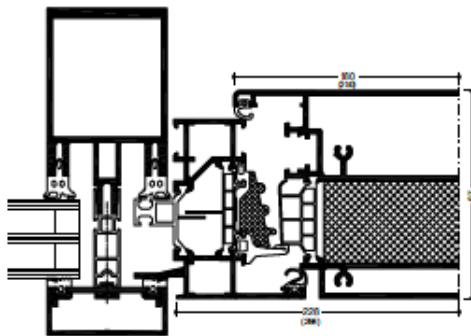
Compatible with the door series
WICSTYLE 65 evo and WICSTYLE 75 evo

WICONA

» WICLINE 75 evo Ventilation flap



WICLINE 75 evo Ventilation flap 180
with window frame



WICLINE 75 evo Ventilation flap 250
with tensioning frame for facades

System test results / CE product pass in accordance with EN 14351-1:2006+A2:2016

| | |
|--------------------------|-----------------|
| Air permeability: | Class 4 |
| Water tightness: | Class 9A |
| Resistance to wind load: | Class C5 / B5 |
| Sound insulation: | Until 42 dB |
| Burglar resistance: | RC1N, RC2N, RC2 |



Technical performance:

Highlights:

- Sash widths from 170 to 330 mm, Standard dimensions 180 and 250 mm
- Max. sash sizes (w x h): 180 mm x 3000 mm or 250 mm x 3000 mm
- Fast and economical adjustment of the sash width in the object
- Narrowest possible shadow gap between sash and frame - only 6 mm as in standard WICONA windows
- 3 m sash height including burglar resistance up to RC2
- Simple and efficient processing exclusively with 90° cutting saw or notch cuts
- Comprehensive system testing according to DIN 14351-1 verifies the high quality of the system technology

Thermal insulation:

- U_f value up to 1.2 W/(m²K)

Hardware:

- High quality system fittings with Direct Positioning System (DPS). Components can be assembled in any order, optionally:
 - Surface-mounted hinges, colour coated or anodised
 - Concealed hinges with integrated end-position stops
- Sash weights: 80 kg
- Optionally with opening limiter
- Burglar resistance RC1N, RC2N and RC2

Concealed motor integration:

- 90° opening allowing for maximum ventilation
- Low-maintenance and tamper-proof
- Adjustable opening angle
- Control via ventilation switches, remote control or building management system
- Concealed emergency release
- No motor chains protruding into the opening area

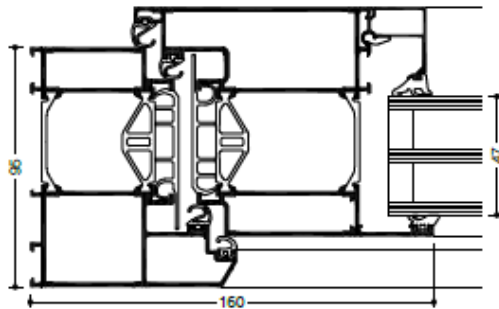
Compatible with the window series WICLINE 75 and façade series WICTEC

WICONA

» WICSTYLE 75 evo Classic design



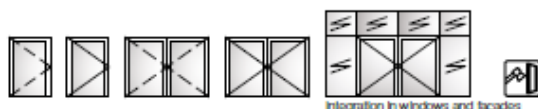
Bevelled profile contours and overlapping sashes are characteristic for the classic design of the WICSTYLE evo aluminium door series. This design underlines a style which is often requested for residential architecture. Ideal for new building and for energetic renovations alike.



System test results / CE product pass in accordance with EN 14351-1:2006+A2:2016

| | |
|--|--|
| Air permeability: | Up to class 4 |
| Water tightness: | Up to 7A |
| Resistance to wind load: | Class C2 |
| Acoustic performance: | R_w (C; C_p) until 43 (-1; -4) dB |
| Operating forces: | Class 2 |
| Load bearing capacity of safety devices: | Fulfilled |
| Mechanical strength: | Class 3 |
| Repeated opening / closing: | Up to class 7 (500000 cycles) |
| Impact resistance: | Class 1 |
| Behaviour between different climates: | Up to class 2(e) 2(d) |
| Burglar resistance: | RC1N, RC2N, RC2, RC3 |
| Quality assurance: | Certified according to ISO 9001:2008 |
| Environmental management: | Certified according to ISO 14001 |

Specific application data see if product pass



Integration in windows and façades

Technical performance:

Profile technology:

- High insulation multi-chamber system, quality assured thermal insulator connection
- For single and double leaf hinged doors
- For inward and outward opening
- For glass or panels with infill thickness from 3 mm to 76 mm
- Various threshold profiles with or without thermal break, also barrier free
- Fanlights, lateral glazings fixed or opening in combination with WICLINE evo window series

Thermal insulation:

- U_i values: from 1.6 to 1.8 W/(m²K), without foam inserts

Hardware:

- Butt hinge
- Screwed hinge
- Concealed hinge
- Leaf sizes (w x h): 1400 mm x 2520 mm
- Max. leaf weight: until 200 kg

Additional designs:

- Double action doors
- Integration frame for stick façades
- Burglar resistance in classes RC1 to RC3

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