

LIXA - Arkitektur med fokus på grønne facader og et minimalt CO2-fodaftryk

Byggeindustrien står over for omfattende og bæredygtig byudvikling - både nationalt og internationalt. Bygninger i dag har høje miljø- og arkitektoniske standarder for at understøtte og sikre en cirkulær økonomi i samfundet. LIXA-kontorfaciliteten i Warszawa, Polen, vil være en del af den dynamiske og bæredygtige udvikling af landets hovedstad, når bygningen er færdig i 2022. WICONA har leveret facader - vinduer og døre til projektet.



LIXA ligger i det attraktive Warszawa-distrikt Wola. Hoveddelen af projektet er et multifunktionelt kompleks af tre bygninger forbundet med en stor fælles grøn have. Specialfremstillede glasfacader lavet af mindst 75% genanvendt aluminium afslutter bygningen. Dette betyder, at for eksempel byggevarer, der er nået deres slutning, er vendt tilbage til produktcyklussen ved at blive smeltet ned, genanvendt og genanvendt i en ny bygning. Dette sparer ikke kun energi - det giver også en betydelig mindre indvirkning på miljøet.

Fasaden lavet af aluminiumslegeringen Hydro CIRCAL har et kulstofaftryk, der er blandt de laveste i verden: omkring 2,3 kg CO₂ pr. Kg aluminium. WICONA leverer 120 tons til projekter. "Ved at tilbyde facader med et minimalt kulstofaftryk kan vi imødekomme den øgede efterspørgsel på markedet for bæredygtige og energieffektive løsninger," siger Hubert Wiśniewski, salgschef for WICONA Polen.

Derudover tilbyder LIXA fleksible åbne kontorer med maksimal adgang til dagslys og naturlig ventilation. Rummelige arbejdspladser, en grøn fælles terrasse og en gård fyldt med sollys i en afslappende atmosfære til kreative møder og job. Dette sammen med forskellige servicefaciliteter såsom restauranter, børnehave og butikker, der er tilgængelige i bygningen. "LIXA er det tredje største kontorkompleks, der i øjeblikket opføres i Warszawa, det vil ikke kun være en arbejdsplads - det vil være et sted at tilbringe tid, hver dag," siger Michał Chrzanowski, HRA Arkitekter.

Da bygningen får BREEAM Excellent-certificering, vil LIXA fremstå som en bæredygtig og klimasmart bygning midt i byen. "De anvendte og gennemtænkte facadesystemer vil gøre det muligt for anlægget, at reducere sit energibehov i fremtiden," siger Michał Chrzanowski.

Bygningen i A-klassen afsluttes i 2022 og dækker et areal på 65.000 kvadratmeter. Den første del vil være afsluttet i sommeren 2020, den anden 2021 og den tredje 2022. Sammenfattende; I praksis bliver LIXA en imponerende og holdbar bygning med sine lave kuldioxidemissioner lige i hjertet af Warszawa.



Arkitekt:	HRA Arkitekter
Metalbygger:	FirmaWidok Sp. z o. o.
Hovedentreprenør:	Porr

WICONA-løsninger:

Facade WICTEC 50 og WICTEC 50FP. Vindue: WICLINE 75 evo og WICLINE 75 evo ventilationsklap. Døre WICSTYLE 75 evo.

**OM HYDRO CIRCAL:**

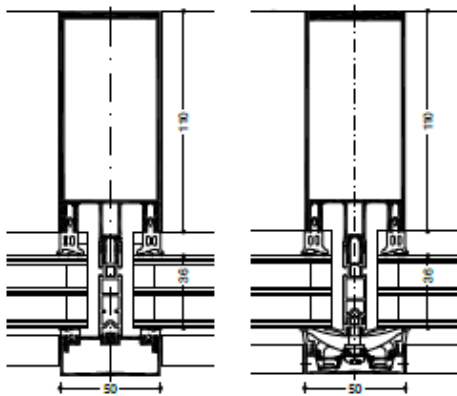
Hydro CIRCAL er en serie produkter lavet af mindst 75% genanvendt aluminium fra tidligere brugte produkter. Ved at bruge genvundne materialer reducerer vi energiforbruget, mens vi stadig kan tilbyde produkter af høj kvalitet. Procentdelen af skrot ændres afhængigt af kundens specifikationer, men vi kan altid garantere et kuldioxid fodaftryk på mindre end 2,3 kg kuldioxid per 1 kg produceret aluminium.

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» 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/(m²K)
Infill thickness:	3 mm to 63 mm
Glass weight:	up to 6.0 kN
Polygon façade:	up to $\pm 45^\circ$ (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:

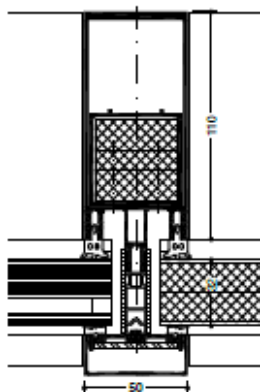
- Passive house curtain wall (lit Rosenheim)
- SG-design (Integrated pressure profile)
- Structural glazing curtain wall
- Add-on curtain wall for steel and wood
- Integrated sun protection
- Fire protection curtain wall
- Quick glazing
- Straight cut
- Heavy load system



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:

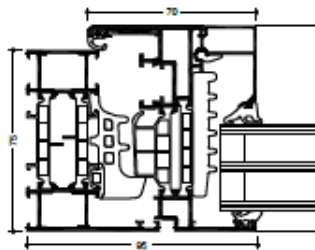
- For vertical and overhead glazing (fire protection up to 0° inclination)
- Slim sight lines: 50 mm or 60 mm
- Compatible and structurally identical with WICTEC 50 and WICTEC 60 standard systems
- Infills: glass or panel
- Extended freedom in design with large infill dimensions possible
- Suitable for 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

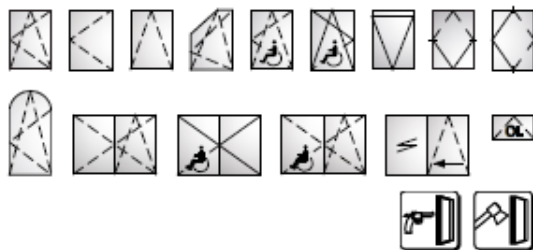
» WICLINE 75 evo

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 Minergie-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:	$R_w (C; C_p) = 47 (-1; -4)$ 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_{gk} values: up to 0.87 W/(m²K) for sashes, up to 0.72 W/(m²K) for fixed glazing, with triple glazing
- Certified as Minergie-P module U_{gk} 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:

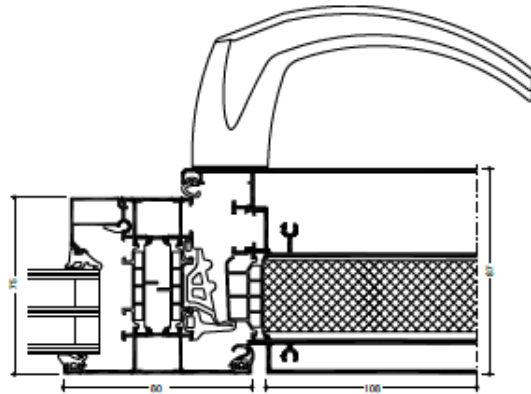
- Concealed sash
- Classic design
- Integration frame for stick façades
- Fanlight with hand lever, cranked rod or motor
- Pivot window, horizontal or vertical
- Parallel sliding window, with or without force operation
- Italian style window
- Top-hung window
- Window doors with barrier free threshold,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

Compatible with the door series

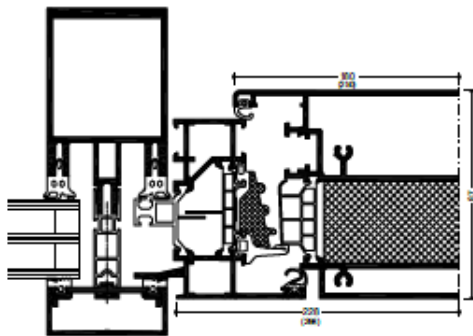
WICSTYLE 65 evo and WICSTYLE 75 evo

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_i 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:

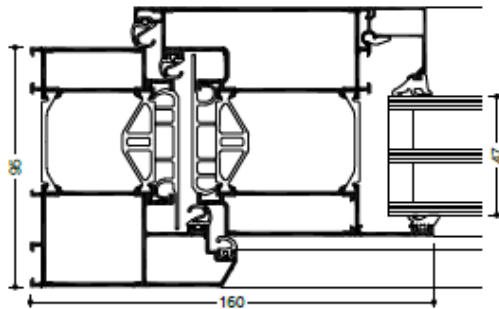
- 90° opening allowing for maximum ventilation
- Low-maintenance and tamper-proof
- Adjustable opening angle
- Control via ventilation switches, remote control or building management system
- Concealed emergency release
- No motor chains protruding into the opening area

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 ift product pass



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

Contact:

WICONA POLSKA

Hydro Building Systems Poland sp. z o.o.
ul. Rokicińska 211/217
PL 92-620 Lodz

***HUBERT WIŚNIEWSKI***

Commercial Director
T: +48 604 176 004

[E-mail: hubert.wisniewski@hydro.com](mailto:hubert.wisniewski@hydro.com)