Shaping the future
Planning and building call for creativity and freedom of design. Ideas are turned into real buildings.

With our know-how, high-tech products and perfect service in aluminium profile systems, we support this process in collaboration with you from the first sketch to the final implementation. WICONA.
Energy efficiency and climate change are quite clearly our priorities. We want to extend our competitive advantage in this field even further and show on the basis of buildings using our products the huge optimization potential available - for new buildings, but even more so for older buildings. Systems such as the self-sustaining TEmotion façade is one example illustrating in which direction we think. For the implementation of this strategy, we need planners and architects who are on the same wavelength.

At WICONA, the outstanding aesthetics, creative freedom and high modularity of the structural components create a harmonious complete unit. We are market leaders in the design of CO₂-neutral and energy-saving building ideas and already possess numerous first-class ratings from sustainability certificates, such as the DGNB. The WICONA brand stands for the highest level of quality, in line with the motto „German technology & engineering“. This is both what we aim for and what we measure our achievements against.

Decades of experience and high competence in the areas of building physics, material properties and construction in connection with aluminium profiles characterize our company. That know-how - especially in the field of research and development - materialize in elementary properties such as tightness, freedom of maintenance and longevity. Through a high degree of prefabrication in the workshop, we increase the precision, enhance work safety and reduce work on site.

Our support out of a broad range of services is tailored to individual needs. It is primarily our direct support on the ground where we can score, such as constructive or building physics issues in fields like statics or U-value calculations. To this end, there is a comprehensive network of WICONA experts helping, for example, in tendering processes. Our perception of competence consists in assistance of the architect in dealing with complicated rules and regulations. We also offer tools such as the WICTIP online database which simplify and accelerate the tasks of the planner.

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What is WICONA’s fundamental aim with products for the design of building envelopes?

Which particular properties and features predetermine WICONA as a partner for architects and planners?

Which specific support options for architects and planners can WICONA offer?

What are for WICONA the most important present and future topics for aluminium building architecture?
Perfection of individual project solutions

- Façades: 8
- Windows: 26
- Doors: 38
- Sliding elements: 46
- Individual project solutions: 52

the building envelope
Design ideas

Stick façades
Unitized façades
Double skin façades
Structural glazing façades
Window façades
Self-sustaining façades

SpreePalais at the Dome
Berlin, Germany

Architects:
Nägele Hofmann Tiedemann & Partner GbR
Frankfurt/Main

Metal construction:
Geerds Groß Welzin GmbH
Groß Welzin
WICTEC – Slim sight lines
Stick façades

WICTEC 50
WICTEC 60

WICTEC stick façades are the flexible, tried-and-tested versatile solutions among WICONA’s range of façade systems. The great diversity of profiles and the extensive range of features offer you both maximum design freedom and the highest process safety from planning to completion.

With slim sight lines of 50 and 60 mm, this system construction achieves a particularly delicate façade design. Additional functions for safety and maximum heat insulation with $U$-values to below 0.8 W/(m²K) can be met at very small additional expense without influencing the appearance.

Havila Shipping ASA
Fosnavåg, Norway

Architects:
Sporstøl Arkitekter AS
Fosnavåg

Metal construction:
John Helvik AS

WICTEC 50 stick façade

WICTEC 50 and 60 are available as aluminium construction or as add-on system for wood or steel substructures. A comprehensive range of insertion elements for various opening types allow extensive design individuality.

The system can easily be upgraded with features such as fire protection or bullet resistance – without changing the visible appearance of the façade.
WICTEC 50HI
High insulation façade

With appropriate glazing, enables Passive House constructions, such as the Heidelberg Fire Station for example.

WICTEC 50A
Add-on construction for direct glazing on supporting structures made from wood or steel.

WICTEC 50
with SG look

With integrated pressure profiles, façade aesthetics similar to structural glazing can be achieved - economic, efficient, without silicon joints and glass retainers.

WICTEC 50
Industry contours

Slender general design by means of particular stick profiles with a technical structure which looks like steel T-profiles or IPE beams.

WICTEC 50
with integrated sun protection

Guide rails incorporated into external cover profiles optimise the interplay between façades and sun protection.

WICTEC Glazed extensions and conservatories

The ideal opportunity to create sophisticated geometries, such as in conservatories, atriums, leisure pools or spas.

WICTEC® – Slim all-rounder
Stick façade variants

Fire protection

- Fire resistance class G30 / F30
- Compatible and visually identical to WICTEC 50 and 60 standard façades
- Fillings: glass or panel
- Pane sizes:
  - Vertical format up to 1800 x 3000 mm
  - Horizontal format up to 2400 x 1400 mm
- Use in internal and external areas
- For façades and overhead glazing

Burglar resistance

- Resistance classes of WK 1, WK 2 and WK 3 can be attained by means of slight additions
- Façade construction based on standard WICTEC 50 or 60 façade
- Visually identical to standard systems
- Glazing in accordance with DIN EN 356
- Can be combined with additional façade variants, windows and doors

Bullet resistance

- Attains bullet resistance class FB4 in accordance with DIN EN 1522
- Façade construction based on WICTEC 50 or 60
- WICLINE 65 and 77 integration windows as well as WICSTYLE 65 and 77 doors in the same bullet resistance class

Safety
UNITIZED FAÇADES – Plannable efficiency

Unitized façades

Today, most construction projects are subject to intense time pressure. With appropriate planning, the WICTEC unitized façade systems enable extremely straightforward processing, by means of serial production and pre-assembly of the individual façade elements. This pre-assembly process is completely unaffected by weather conditions. Consequently, this permits rapid and economical implementation for buildings of any size, whilst simultaneously enabling creative diversity and a delicate appearance.

Furthermore, it is particularly in renovation projects that these systems offer great advantages, thanks to improvement of energy efficiency during building use. You can rely on the WICONA team to support you throughout your project, with the benefit of their long and comprehensive experience and skills.

WICTEC EL
WICTEC 50EL
WICTEC EL60

Recurring element structures enable rational planning and processing. The integration of additional components such as opening elements, building technology components, panels, cladding or sun protection is easily possible. Time and cost savings are achieved through just-in-time delivery and assembly of pre-fabricated units (without scaffolding).
WICTEC® – Twice the protection
Double skin façade

WICTEC DuoWall

DuoWall is a façade concept that opens up new approaches based on WICONA systems. Today’s building trade is determined as much by ecological standards as by technical-functional, aesthetic and economic criteria. Holistic system solutions which combine a high level of technology, ecology, design and visions are required.

To put it simply: WICONA double skin façade solutions. The basic concept of a second, non-insulated layer of glass in front of an internal heat-insulated façade with opening sashes can be achieved with various combinations of WICONA systems. The layout is tailored to the specific building in each case. You can rely on the WICONA team to support you throughout your project, with the benefit of their long-standing and comprehensive experience and skills.
The delicate appearance with and without silicon joints between the individual glazed elements is characteristic of WICTEC 50SG. The system offers structural glazing technology with insulating glass and can be inserted in façades as well as in glass roofs.

WICTEC® – Shining views
Structural glazing façade

Façades made entirely of glass have a firm place in contemporary architecture and create impressive building elevations. Using WICONA systems, extremely delicate outside elevations without visible glazing beads and which only have narrow joints are possible, including opening elements and insulating glazing. Based on the WICTEC stick façade, these versions can be created to the most demanding technical specifications, simply and economically.

ARCHITECT:
Gerd Behnisch Architekten
Frankenthal

Metal construction:
Metallbau Obermaier GmbH
Reichenhart

L’ORÉAL Production GmbH & Co. KG
Karlsruhe, Germany
As a punch window or ribbon glazing, the aim is for the exterior design to show a window structure or, alternatively, reflect the style of a stick façade with cover profiles that can be clipped on. The glazing can be installed so as to span storeys and sections, as a cold-warm façade. This technology therefore offers an ideal solution to the renovation of buildings with ribbon glazing on parapets.

WICTEC FF combines window technology with the appearance of a curtain wall in an ideal manner, using slim profile elevations of 80 mm throughout, which have an identical appearance whether fixed glazing or opening elements are used. Thermal insulation is very effective in the WICTEC window façade, similarly to the WICONA window system WICLINE 77. As operable integration elements WICLINE 77 range windows with concealed sashes as turn, turn/tilt, tilt and double vent windows are possible.

WICTEC® – Appearance and technology in harmony
Window façade

Airport Terminal 2
Hamburg, Germany
Architects: von Gerkan, Marg und Partner Architekten Hamburg
Metal construction: Konrad Lindhorst Metallbau GmbH Lindhorst Metallbau GmbH Fertigungszentrum GmbH Berlin
In contrast to conventional facades, TEmotion saves 40 to 50 per cent of the primary energy otherwise used for heating, cooling, ventilation and illumination. As all the building technology is integrated into the vertical elements, the building measures are limited to the area of the façade. The dimensions and layout of the individual components can be adjusted to suit any building plan.

TEmotion is an intelligent façade concept with integrated active and self-sustaining building technology. The façade reacts to changes in outdoor and indoor conditions, such as light or temperature, and therefore makes a significant contribution to improving the energy efficiency of the building envelope and reducing the operating costs. TEmotion contains the integrated ventilation, air-conditioning and heating technology, adjusts the sun protection to the prevailing conditions and prevents the interior from overheating. At the same time, by means of adaptable light control, it ensures dazzling-free, indirect natural daylight.

By means of automatically opening façade elements, it allows the building to be “flushed” with fresh air at night, which considerably reduces the costs of cooling. Active use of solar energy is possible through integration of photovoltaic elements. You can rely on the WICONA team to support you throughout your project, with the benefit of their comprehensive experience and skills.
Façade contructions
Overview

Conferring character

Window system

Punch and ribbon windows
Coupled windows
Insertion windows
Window variations
Opening types and fittings
The classic use of aluminium windows is the high-quality execution of punch or ribbon windows in the construction of apartment blocks and in offices, industrial and commercial structures. In new buildings, WICONA window solutions allow durable and energy-efficient solutions to be planned and executed from the outset. WICONA systems also offer a suitable concept for renovation projects with special profile geometries. Thanks to the great variety, numerous shapes and types of opening, WICLINE windows can be specifically tailored to the individual building and the wishes of the customer. This also applies, for example, for additional functions such as improved sound insulation, burglar and bullet resistance – simple to integrate without influencing the appearance of the façade.

Almost all relevant areas of application are covered with the three profile depths of 65, 77 and 125 mm. In the face of constantly increasing energy prices and the necessary-climate protection, heat insulation is one of the most important topics when it comes to window profiles. The range includes various insulating options up to high-quality energy-saving windows, with which $U_w$ values down to 1.0 W/(m²K) can be achieved. A non-insulated profile variation is available for use inside buildings.

The WICLINE 77 is a punch/ribbon window with industrial contours for historical buildings. It is available with high-quality, energy-saving profiles with industrial contours. Thanks to the great variety, numerous shapes and types of opening, WICLINE 77 windows can be specifically tailored to the individual building and the wishes of the customer. This also applies, for example, for additional functions such as improved sound insulation, burglar and bullet resistance – simple to integrate without influencing the appearance of the façade.

WICLINE 65 / 65HI / 65N
WICLINE 77 / 77HI / 77IK
WICLINE 125

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TOP-Window is the innovation in WICONA coupled windows. Already with standard glazing, it offers increased sound insulation for closed windows. Values of 39 to 57 dB can be reached according to the type of glazing. Even with the window open, TOP-Window effectively reduces the noise level from the outside. The integrated sun protection is effective with a slimline depth and is protected against dirt and weathering.

In addition to a pleasant indoor temperature, it also noticeably optimises energy consumption. Depending on the type of glazing, the TOP-Window offers high energy efficiency with $U_W$ values of 1.2 W/(m²K) to 0.65 W/(m²K). The tilt-turn casements and the external parallel outward opening casements are individually adjustable independently of one another and enable adequate ventilation of the interior. This creates a noticeably pleasant indoor temperature and lowers energy consumption.

Those who require more protection against environmental influences can add an extra layer: In the WICLINE 125 composite structures, an internal window is combined with an additional sash in front of it. In this way, the protective function and the level of comfort are significantly increased. Optimised sound insulation, maximised energy savings through increased heat insulation up to $U_W=0.9$ W/(m²K), the greatest possible ease of use, efficient and weather protected integration of sun protection systems: WICLINE 125 coupled windows can satisfy even the most varied requirements with ease.
**WICLINE** – Structure for façades

**Insertion windows**

**WICLINE 65 / 65HI / 65N**
**WICLINE 77 / 77HI / 77IK**
**WICLINE 125**
**WICTEC SG-Top-hung windows**
**WICTEC 50 Sky lights**

The flexibility and wide range offered by WICTEC façade systems are perfectly matched by the individually with which opening elements from the WICTEC and WICLINE ranges can be integrated into glass façades and roofs. Precise coordination of heat insulation up to the highest values, slim elevations of profile geometries with special outer frames, freedom to choose from an extremely wide range of opening types – with WICLINE window ranges you will find the right solutions, whatever your requirements are.

In addition to the visually harmonious integration in available façade structures, WICONA insertion windows are characterised by their high functionality. Inwards or outwards opening can be carried out manually or by motorised operation. Various system variants enable flexible adaptation to required heat insulation criteria.
NSHEV windows
WICONA also introduces great design freedom with the NSHEVs (Natural smoke and heat exhaust ventilation systems) with an extensive range of approved window variants for façades and glass roofs.

Special windows
If the extensive range of systems does not meet your requirements, we also develop individual special solutions.

Industrial contour
WICLINE 77IK creates a distinctive appearance with aluminium transom-crossbar profiles in steel design.

Burglar resistance / Bullet resistance
Safety aspects can be implemented easily without serious loss of protection without jeopardising the appearance with WICLINE.

Ventilation vents
Heat insulated aluminium turn sashes (WICLINE 77 profile) can be integrated into side lites for manually operated ventilation ideal for office and hotel buildings.

Types of opening
The WICSTAR fittings keep all types of opening in motion in the WICLINE window range. They are available as visible or concealed options to meet all design requirements.

With a large number of types of opening and the choice of manual or motor operated casements, WICONA covers almost all conceivable areas of application with the WICLINE window series and WICSTAR fittings. The following opening types are possible:

- Turn, turn/tilt and tilt windows
- Double vent windows
- Concealed sashes (block windows)
- Horizontally-pivoted sash windows
- Vertically-pivoted sash windows
- Parallel vent windows (opening to outside)
- Top hinged windows (opening to inside)
- Top hinged windows (opening to outside)
- Parallel vent windows (opening to outside)
- Parallel slide tilt doors
- French windows

WICSTAR E-TecDrive
E-TecDrive is a fittings system incorporating an electronic motor which allows lifting, tilting and opening of windows via an inbuilt drive unit concealed in the window frame.
Entrance design of the highest level

Door system

- Non-insulated hinged doors
- Insulated hinged doors
- Safety doors
  - Fire protection
  - Smoke protection
  - Emergency exit doors
  - Burglar resistance
- Automatic sliding doors
They say first impressions last – and in the case of buildings that applies especially to the front door, the building’s “calling card”. There can hardly be any other component of a structure that has to reconcile so many different criteria. Whether it is the door to a private house, a large entrance to an administrative building or a hotel, a fire protection door or emergency exit in a school, or a simple functional door for a manufacturing building: the technically mature WICSTYLE profile ranges, with their numerous opening types, versions and expansion options, enable you to create tailor-made door solutions for any situation.

**WICSTYLE 77**

WICSTYLE 77, with a profile depth of 77 mm, with flush-fitted door profiles and providing correspondingly higher heat-insulation performance, meets one of the most important requirements of the future: energy saving through a significant reduction in heat losses.

**WICSTYLE 81**

WICSTYLE 81 offers greater freedom of design thanks to a range of profiles which differ in style, with a profile depth of 81 mm. The round or angled shape is characteristic of the medium-contour construction. Stepped door profiles are another key feature of this door system.

**WICSTYLE 88**

Premium structure with front door technology to satisfy the most stringent requirements: Excellent technical values, multiple design variants and possible combinations, three gasket levels and the option of inward or outward opening, as required, are just some of their special properties.

**WICSTYLE 50N**

WICSTYLE 50N was designed specially for use inside buildings where heat insulation is not a determining factor. With a profile depth of 50 mm, extremely delicate structures are possible for internal fittings.

**WICSTYLE 65 / 65N**

With WICSTYLE 65, you have a universal system that fulfills all the requirements made of a modern door in an attractive design and economical construction. You can choose between non-insulated and heat-insulated versions whilst retaining the same look.

**WICSTYLE 77** – Functional element and designer piece

Hinged doors

**WICSTYLE 50N**

WICSTYLE 50N was designed especially for use inside buildings where heat insulation is not a determining factor. With a profile depth of 50 mm, extremely delicate structures are possible for internal fittings.

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Safety technology doors

Escape route and panic
- According to DIN EN 179 (escape route) / DIN EN 1125 (Panic design)
- Can be implemented with various WICONA door systems, creating a uniform door design throughout the building
- Option of single or double-leaf design
- May be combined with WK1 and WK2 burglar resistance
- May be designed with fire protection in class T30 and T60 and with smoke protection

Fire protection
- Verified in accordance with DIN 4102 / DIN EN 13501-2 regulations and approved by the German Buildings Inspectorate
  - In EI60/T30/F30 or EI60/T60 (WICSTYLE 77FP)
  - In EI90/T90/F90 (WICSTYLE FP)
  - In T90/P90 (WICSTYLE FP90)
- Compatible with WICONA standard profile systems
- Extensive fittings for requirements such as panic functions, emergency exit locks, electric safety locks, electronic openers, revolving door drive, magnet and bolt contact

Smoke protection
- In accordance with DIN 18095 (WICSTYLE 65N)
- Flush door structures on both sides
- With butt hinges or screw-on hinges in aluminium or stainless steel
- Can be combined with WICSTYLE 65
- Single and double-leaf, opening inwards or outwards
- Fixed and moveable side elements and overhead windows, option of glass-separating or adhesive bars

Burglar resistance
- In accordance with DIN V ENV 1627
- Design in four depths: WICSTYLE 65, 77, 81 and 88
- Upgradable with additional sides to the desired level of security and protection (e.g. WK1 – WK 3)
- Can be combined with bullet resistance class FB4 in accordance with DIN EN 1522

Fire protection
- Verified in accordance with DIN 4102 / DIN EN 13501-2 regulations and approved by the German Buildings Inspectorate
  - In EI60/T30/F30 or EI60/T60 (WICSTYLE 77FP)
  - In EI90/T90/F90 (WICSTYLE FP)
  - In T90/P90 (WICSTYLE FP90)
- Compatible with WICONA standard profile systems
- Extensive fittings for requirements such as panic functions, emergency exit locks, electric safety locks, electronic openers, revolving door drive, magnet and bolt contact

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- With butt hinges or screw-on hinges in aluminium or stainless steel
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- Design in four depths: WICSTYLE 65, 77, 81 and 88
- Upgradable with additional sides to the desired level of security and protection (e.g. WK1 – WK 3)
- Can be combined with bullet resistance class FB4 in accordance with DIN EN 1522
WICSTYLE® – Save energy with comfort
Automatic sliding door

The highly heat-insulated automatic sliding door WICSTYLE 65ED, which has been developed from the profile base of WICLINE 65, is your new route to energy savings. Automatic sliding doors have short open and close cycles that have been optimised for throughput. Therefore, when in operation they retain the largest amount of warmth within the building. A major role in energy efficiency, however, is also played by the time in which the door remains permanently shut – such as overnight. During such periods, in particular, WICSTYLE 65ED protects the building reliably against excessive energy loss with U-values up to 1.5 W/(m²K), thereby making a significant contribution to improving the overall energy balance of the building. Undesired draughts are efficiently avoided by means of multiple sealing levels and special locking technology.

WICSTYLE 65ED combines comfort and energy efficiency with an attractive appearance due to slim sight lines, efficient heat insulation and coordinated integration of the drive. The leaves, up to 3.0 m high, can be combined with side elements and fanlights; the whole door system can be easily integrated into a WICTEC stick façade. WICSTYLE 65ED complies with the personal safety requirements set out in DIN 18650 and is approved as a complete system by ift and TÜV. Upgraded types with increased burglar resistance are possible by means of an integrated multi-point locking system.

Energy saving of up to 70% with the automatic sliding door tested as a complete unit.
Floating Mercure
Hamburg, Germany

Architects:
Förster Trabitzsch Architekten
Hamburg

Metal construction:
Hanse Metallbau GmbH & Co. KG
Elbbrücke Lichtenhagen

Opening spaces

WICSLIDE®
Sliding system

Insulated sliding doors
Non-insulated sliding doors
Lifting/sliding doors
Folding/sliding doors
Using these profile systems, you can open up large areas of living rooms, conservatories or glass extensions to the outside. WICSLIDE has the most suitable and functional solutions for all areas of application, whatever your customer's requirements and the structural and spatial opportunities on site. Large leaf areas with compact profiles always guarantee delicate structures. Robust fittings offer long-lasting functional safety even under long-term stress.

Various system versions enable flexible adaptation of the construction to specific heat insulation requirements. Upon request, WICSLIDE sliding doors and windows, sliding doors and windows almost anywhere can be combined with double and triple tracks and with fixed panels in the comprehensive WICSLIDE range. Folding sliding doors complete the WICSLIDE range.
WICSTYLE™
WICSLIDE™

Door and sliding element constructions

Overview

Unique technology and design

– Individual project solutions

WICONA – a brand which is synonymous with aluminium structures that are unique in the truest sense of the word, and which go far beyond standard. Whether used in a facade for an impressive metropolitan development, as a functional door system or in windows with the aim of creating an architectural structure unique in terms of technology and aesthetics, each solution is individual, allowing the requirements and wishes of the customer to be met in full.

The WICONA range offers the best options for the realization of complex design concepts that are unique in terms of technology and aesthetics.
Design freedom with individual support

Project Solutions

Each project is different. The wishes of our customers are just as diverse as the options for implementation using the WICONA systems. This is where highly qualified, experienced WICONA experts step in and offer specialist advice. Together with the customer, they plan the best approach for every project, taking into account fundamental criteria such as energy efficiency, sustainability, budget, building physics and deadlines. This offer of advice throughout the project does not end when construction begins. The specialists at WICONA’s project sales division also work on site to meet challenges head on.

Technology for ideas - WICONA’s slogan becomes reality. Using WICONA products means you can benefit from complete freedom in your design ideas; we will develop the technology for accurate and stylish implementation. The complexity of your construction project will determine the degree of customisation.

Anything is possible: the WICONA range offers a wide spectrum of modules constructed from basic profiles that can be used to create many custom solutions. Individual profile components can be adapted or modified - to fit perfectly into the overall system. We can develop special profiles for you, in order to fulfil specific functions or design requirements. We will work together with you to build completely new constructions – unique buildings that represent the ultimate in custom project solutions.

KfW Bank Frankfurt
sauerbruch hutton, Berlin
Project solution for double skin façade in unitized construction, polygonal scaled with integrated turn sashes.

Klimahaus® 8° Ost Bremerhaven
Klumpp Architects, Bremen
Special profiles for project-specific construction, for sheet metal covering and glass façades.

Park Postepu 21 Warszawa
APA Wojciechowski architects, Warszawa
Special profile solution for bespoke unitized façade.

Alte Baumwolle Flöha
Heat-insulated windows with special profiles in accordance with historical regulations (protection of historical monuments).

Monte Rosa Hut Zermatt
ETH Zürich, Prof. Eberle stick system construction for photovoltaic elements, heat-insulated ribbon windows in 8 different inclinations.

Empire Riverside Hotel Hamburg
David Chipperfield Architects, London
Bespoke unitized façade with integration of façade lining in bronze and ventilation flaps.

WICONA Test Centre Beilenberg, Test centre for façades and windows. Here we are able to test façade samples from project solutions in accordance with project specific requirements or international regulations and standards. The building is designed as Plus-Energy production building, with façades and a glass roof of Passive House quality.
Information and applications at the click of a mouse

At each stage of a project, specific digital information is required. Our online services and software packages, which are adjusted to these various individual requirements, offer you 24-hour, daily access to exactly the information you require for your work. Quickest access can be found at www.wicona.de/ch.

“Technology for ideas“ – also online!

Click directly into the new WICONA world on the internet: www.wicona.de. WICONA’s internet site has an attractive and modern design, focussing on the benefits for you. The full range of WICONA products are displayed and documented with a wealth of detailed information, images and graphs. You can find the product information you are looking for with just a few clicks.

www.wicona.de offers

- all important information relating to WICONA and our products, brief and up-to-date
- a large and specialised information service for you as an architect and planner
- a clear and comprehensible user guide - you are able to find information instantly
- rapid access to all areas specific to you under the menu header „architects“
- an extended service via direct, usable tools, which you can find via links such as a database for tender text, for example, or software to calculate window U values.

In WICTIP, we place the entire WICONA system documentation at your fingertips in digital format. Information such as product-range lists, brochures, test certificates and planning guidance can be viewed interactively, with links to related information. Questions arising during planning or processing can be answered quickly and in detail using up-to-date information. The WICTIP download centre provides detailed drawings and examples of use in various CAD formats regardless of the browser you are using.

www.wictip.com
www.wictip-downloadcenter.com

In WICTOP, we place the entire WICONA system documentation at your fingertips in digital format. Information such as product-range lists, brochures, test certificates and planning guidance can be viewed interactively, with links to related information. Questions arising during planning or processing can be answered quickly and in detail using up-to-date information. The WICTIP download centre provides detailed drawings and examples of use in various CAD formats regardless of the browser you are using.

www.wictip.com
www.wictip-downloadcenter.com

With this software, three-dimensional constructions, including calculations and technical preparation of work can be created. WICTOP offers an additional unique function within the scope of sustainability: With this function, environmental information regarding individual building envelopes is available at the touch of a button.

U value calculations for your windows can be carried out online and in the simplest manner via this platform. Additional tools for calculating data will continuously enhance this application.

www.wictip-tools.com

In WICPLOT 2.0, constructions software controlled by a database you will find all functions for straight-forward drawing up of architectural plans and design sections.

www.wicona.de
Sustainability – Building for the future

Sustainability in architecture targets energy efficiency and climate protection, and allows, first and foremost, the most economical use of natural resources possible. In the future the sustainability factor of a building will increasingly become an assessment criterion for purchasers, lessees and investors. This is expressed by the growing number of certificates for buildings, which evaluate sustainability according to set criteria. Below are some examples:

- **DGNB seal of quality** (German Sustainable Building Council):
  This requires integral planning, including the setting of sustainability goals, and takes ecological and economic factors into consideration.

- **Passive House certificate**:
  Limits annual heating requirement to 15 kWh per m² of living area, so that a building can be heated exclusively by passive energy sources and needs no active heating system. To this end, the Passive House Institute demands an $U_w$ value of $\leq 0.8$ W/(m²K) for windows and glass façades.

- **Minergie standard (Switzerland)**:
  Assesses sustainability on the basis of set energy indicators for buildings, amongst other things. The Minergie label for windows, for example, is awarded when a two-leaf casement window attains an ambitious insulation value of $U_w=1.0$ W/(m²K).

  WICLINE 77 was the first metal window to receive the Minergie label.
Aluminium – the best basis for sustainable building

From raw materials to recycling: aluminium is an ideal material for a maximum level of sustainability. In recent years, the energy consumption of electrolysis has been reduced substantially in the production process. Only 5% of the original energy consumption is necessary for the production of aluminium from recycled materials. Due to its high material properties, aluminium can remain in use for a long period of time without the use of complex protective measures against weathering, corrosion or fungal infestation. And when windows need to be replaced after many years, the profiles will not end up as hazardous waste, but will provide a valuable recycling source. In the most important areas of application, the recycling rate of aluminium is between 95 and 100 per cent. Therefore, aluminium is generally not “used up”, but “used”, then reused time and again thereafter.

WICONA has the appropriate solutions

signed and sealed: WICONA's aluminium profile constructions fulfill the demanding criteria of all the before-mentioned building certificates impressively, and have therefore contributed substantially to the certification of the buildings indicated here. WICONA took on a leading role in this field many years ago and can now draw upon decades of research and development. Thanks to this, you have a broad portfolio of products and services at your fingertips, so that you too can design your building in a more sustainable and future-oriented manner. WICONA is the first profile system brand to offer a special service regarding sustainability: the Environmental Product Declaration (EPD), which covers the entire life cycle of building products, including their environmental impact. You can generate this declaration (pursuant to international standards ISO 14025 and ISO 21930) using the customer software WICTOP.

Freudenberg Haushaltsprodukte KG, Weinheim
(Baurconsult Architekten, Hassfurt)
Awarded the Silver Seal of Approval by the DGNB.
Designed with WICTEC 50 Hi façades of Passive House quality and WICLINE 77 Hi high insulation windows.

DEG, Cologne
(JSK Dipl.-Ing. Architekten, Dusseldorf)
Awarded the Gold Seal of Approval by the DGNB.
Designed with an unitized WICONA double skin façade.

Fire station, Heidelberg
(Kula & Urbanetz Architekten, Cologne)
Awarded the Passive House certificate from the Passive House Institute.
Designed with WICTEC 50 Hi façades of Passive House quality and WICLINE 77 Hi high insulation windows, U_total = 0.8 W/(m²K).
Sustainable perspectives

Hydro Building Systems supplies building systems for windows, doors, façades and glass extensions. Aluminium production and processing as well as energy production from hydroelectric power are the main pillars of the Hydro Group. Ecological concepts are therefore at the centre of all stages of production and all market areas.

Hydro Building Systems is a leading company in the design, development and supply of aluminium profile systems for windows, façades, doors and glazed constructions. WICONA stands for “made in Germany” quality. Experience and valuable knowledge and skills have been gleaned over more than six decades – the best basis for a successful market presence and dynamic development for the future. Intensive fundamental research, innovative system development, individual project solutions and customer-oriented project services always play a key part in this. The whole world therefore has access to high-quality aluminium technology solutions under the brand name WICONA.

WICONA in the Hydro Group

WICONA belongs to the Hydro Group as a brand of Hydro Building Systems.

Hydro is a global supplier of aluminium and aluminium products. Based in Norway, the company employs 23,000 people in 40 countries and has activities on all continents. Rooted in a century of experience in renewable energy production, technology development and progressive partnerships, Hydro is committed to strengthening the viability of the customers and communities we serve.

Hydro leads the way in the aluminium recycling sector; sustainability is the company’s philosophy and also the most important standard in research and development. Hydro operates hydroelectric power stations in Norway, generates energy for its aluminium production and is active in developing solar technologies and applications. This results in leading positions in the growth fields of the future: Hydro leads the 2009 ranking of aluminium companies in the valuation of the Dow Jones Index for Sustainability (DJSI) – for the fourth time in succession. The company received the best grades for the reporting system for risk and crisis management, for its ethical principles, transparency, environmental policy and environmental management as well as its strategy for biological diversity and climate protection.