

## TIMELESS WOODEN JOINERY

Woodwork is a proposition for those who appreciate the beauty that comes from nature. The ecological material is friendly to both humans and the natural environment.

Selected systems feature external aluminum cladding. Their function is to provide protection to the profiles and to bring their aesthetics closer to the subtle minimalism of modern architecture.

The wood used in production comes from trees designated for planned felling. We use four types:



#### PINE

The most popular coniferous species used in woodwork production.



#### **SPRUCE**

Easy-to-work wood that stains well.



#### **MERANTI**

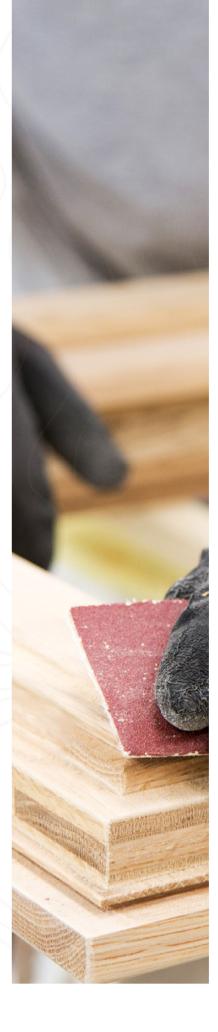
Exotic wood with high moisture resistance.



#### OAK

Noble and durable wood species with high density.

<sup>\*</sup>All types of wood are finished with colors from the stain palette or RAL palette. Additionally, clear lacquer or impregnant can be applied. Raw wood is delivered upon customer request.







#### **INDIVIDUALISM**

All wooden products are prepared according to the individual wishes of the client. This allows them to match windows and doors to their aesthetic preferences. The wealth of complementary systems translates into the ability to select solutions with the desired functional parameters. Many years of experience and specialist knowledge enable us to execute even highly unconventional projects, characterised by a unique approach to design and bold creativity.



#### **VARNISHES**

The wood varnishes we use are supplied by our close collaborator, TEKNOS. This varnish manufacturer provides us with a rich palette of colours, including clear varnishes, offering a wide range of options for every client. Their coatings embody style and elegance while providing excellent protection against biological corrosion, mechanical factors, and discolouration caused by UV radiation.



#### **TRANSPORT**

In order to ensure the timely and safe delivery of our products, we have established our own transport fleet. Each of our trucks is equipped with a forklift, allowing us to unload immediately upon arrival at the specified location. This eliminates unnecessary waiting periods for unloading and reduces delivery costs. In response to your needs, our drivers in selected markets are equipped with payment terminals, enabling card payments upon receipt of the products.



#### **ECOLOGY**

Wood is a valuable, natural resource that is also completely renewable. Its use in production helps reduce CO<sub>2</sub> emissions. We use wood from verified sources, responsibly harvested to minimize the negative impact of forestry on nature and local communities. Moreover, producing wooden windows and doors requires less energy compared to other materials. This results in lower carbon dioxide emissions during the production of joinery, as well as reduced consumption of energy resources for heating buildings, thanks to the excellent thermal properties of wood.



## **NATURO 80**

WINDOW SYSTEMS



The following  $U_w$  value is given for a reference window with dimensions  $1230 \times 1480$  mm, with 4/16Ar/4 one pane, wood type: pine

80

35-44

3-4

4

2

0,81

construction depth [mm] glazing units [mm] layers of glued wood layers of varnish

gaskets

 $U_w$  for  $U_g = 1.0$ (the Ultimate frame)

Naturo 80 is a wooden system designed for use in energy-efficient construction. Warm frames, combined with glazing units up to 44 mm wide, allow for solutions with good thermal and acoustic performance.

Windows are available in standard, Belgian, Dutch, renovation, and monoblock versions. They also feature an outward-opening option.



Standard profile (without an undercut)



Standard profile (with an undercut)



Renovation profile (without an undercut)



Belgian profile A (without an undercut)



Belgian profile A (with an undercut)



Belgian profile B (without an undercut)



Dutch profile (without an undercut)



Monoblock profile 112/132/152/172



Fix profile (without an undercut)

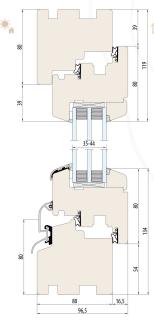


Outward-opening profile (with an undercut)

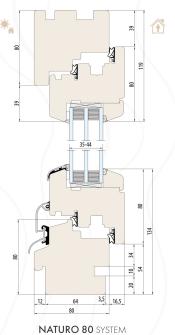
# Α В

В

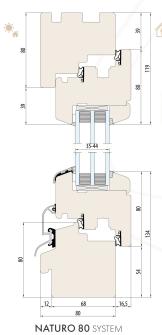
VERTICAL CROSS-SECTION A-A



NATURO 80 SYSTEM Without undercut for the window sill



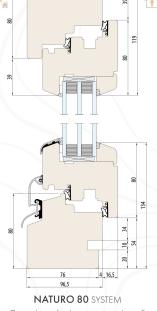
The undercut for the interior and exterior window sill



The undercut for the exterior window sill

NATURO 80 SYSTEM

SECTION B-B

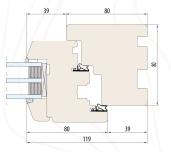


The undercut for the interior window sill

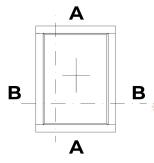


NATURO 80

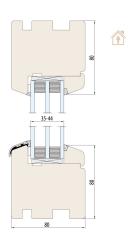




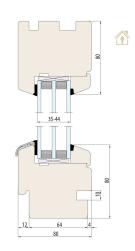




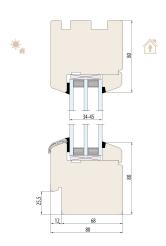
VERTICAL CROSS-SECTION A-A



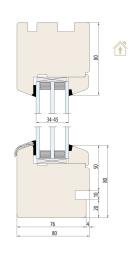
NATURO 80 - FIX SYSTEM Without undercut for the window sill



NATURO 80 - FIX SYSTEM
The undercut for the interior and exterior window sill

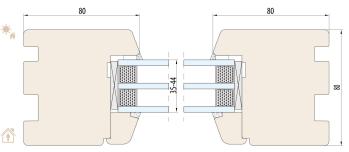


NATURO 80 - FIX SYSTEM
The undercut for the exterior window sill

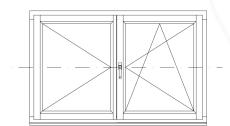


NATURO 80 - FIX SYSTEM
The undercut for the interior window sill

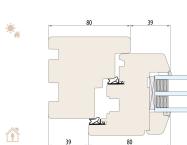
**NATURO 80 - FIX** SYSTEM HORIZONTAL CROSS-SECTION B-B

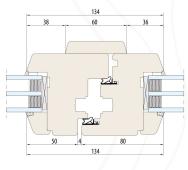


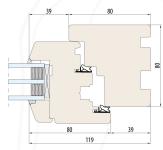
NATURO 80

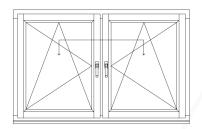


## NATURO 80 MOVABLE POST



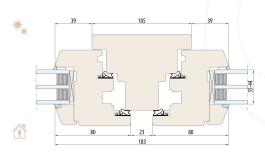




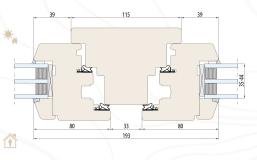


## NATURO 80

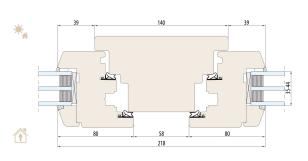
FIXED POST



NATURO 80 SYSTEM fixed post 105 mm (Horizontal cross-section)



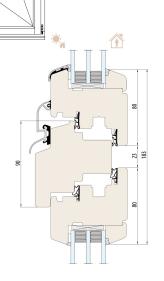
NATURO 80 SYSTEM fixed post 115 mm (Horizontal cross-section)



NATURO 80 SYSTEM fixed post 140 mm (Horizontal cross-section)







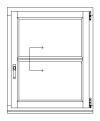
NATURO 80 SYSTEM transom bar 90 mm



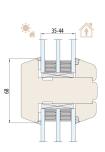
NATURO 80 SYSTEM transom bar 105 mm



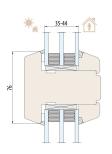
NATURO 80 SYSTEM transom bar 115 mm



## NATURO 80 MUNTIN BARS



NATURO 80 SYSTEM Muntin bars 68 mm



NATURO 80 SYSTEM Muntin bars 76 mm



NATURO 80 SYSTEM Muntin bars 140 mm

## **SPACER BARS**

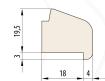
#### **DEPENDENT ON THE THICKNESS OF THE GLAZING UNIT**

#### STANDARD GLAZING BEAD





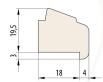




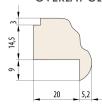
#### RETRO GLAZING BEAD







#### OVERLAY GLAZING BEAD



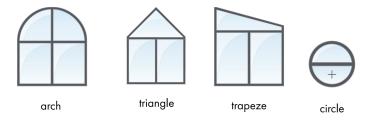


#### **MODEL WINDOWS AND DOORS**

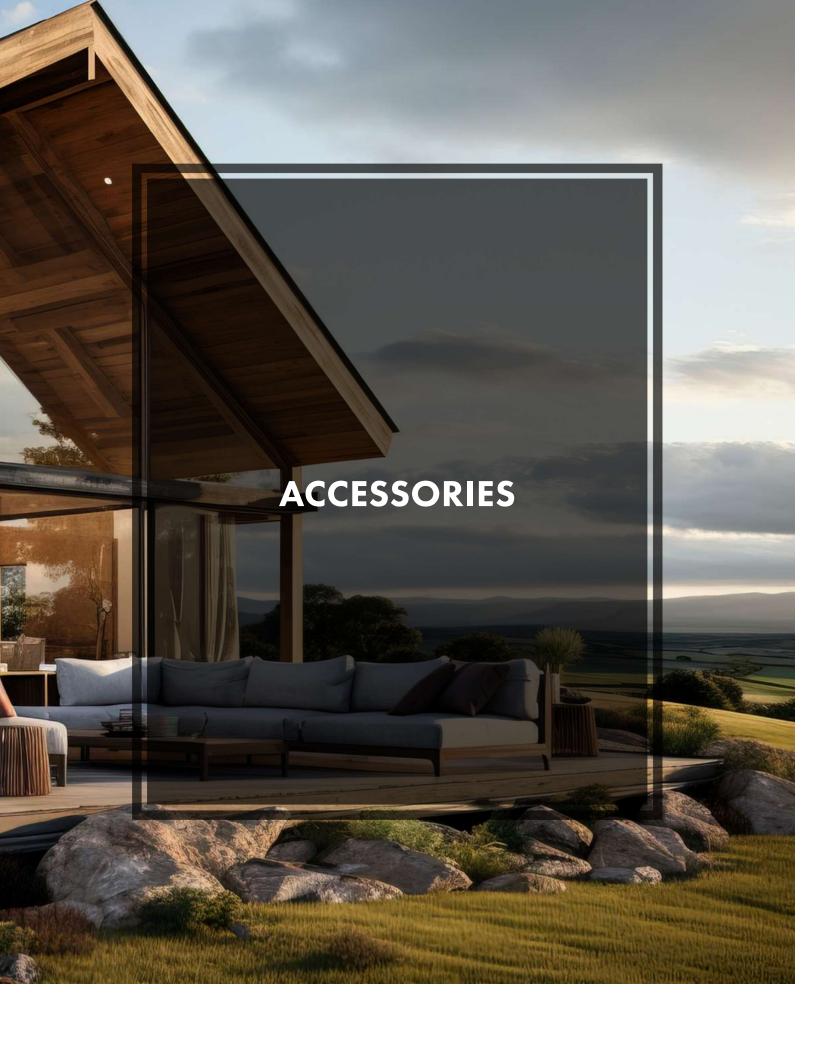
We offer joinery in arched and angled shapes, perfectly suited to buildings maintained in various styles. Investors are increasingly opting for unconventional shapes.

Arched windows lend a unique character to both the interior and the facade. They are often a decorative feature of classic residences, historic palaces, and buildings. On the other hand, angled windows are a proposition for modern buildings, which, with their form, reference more traditional objects.

We prioritize the latest technology, allowing us to meet individual customer expectations. With materials of the highest quality and state-of-the-art technology, the only limitation is imagination.



(+) fix window - permanently closed



### **PANES**

The glazing installed in our windows takes the form of glass units, consisting of at least two glass panes. For achieving the best thermal performance, the space between the glass panes can be filled with noble gases: argon or krypton. We also apply coatings of metal oxides (thermo and one), which further reduce the thermal transmittance of the glazing.

The best glass units equipped with a so-called warm profile allow us to achieve a thermal transmittance coefficient Ug at the level of 0.3 W/m2K.

In addition to standard glass, we can also offer soundproof, safety, anti-burglary, ornamental, and solar control glass. The possibility of combining different types of glass and a smaller or larger number of panes allows us to achieve the appropriate parameters for each type of window and door in our offer.

Here's a comparison outlining the basic types of insulated glazing units along with a description of their functions:



## Double Pane Glazing Unit

A single-chamber double glazing unit composed of two glass panes. It is a standard for basic window and door systems.



#### Triple Pane Glazing Unit

A double-chamber gazing unit enhance thermal comfort in the room. The separation of the space between the glass panes with an additional glass pane significantly reduces heat transfer.



#### Soundproof

Insulated glazing units equipped with acoustic film provide an elevated level of noise reduction. Various glass thicknesses can effectively dampen sounds at specific frequencies.



#### Safe

Laminated and/or tempered glass enhances safety. Tempered glass is stronger and breaks into blunt pieces, while laminated glass is harder to penetrate.

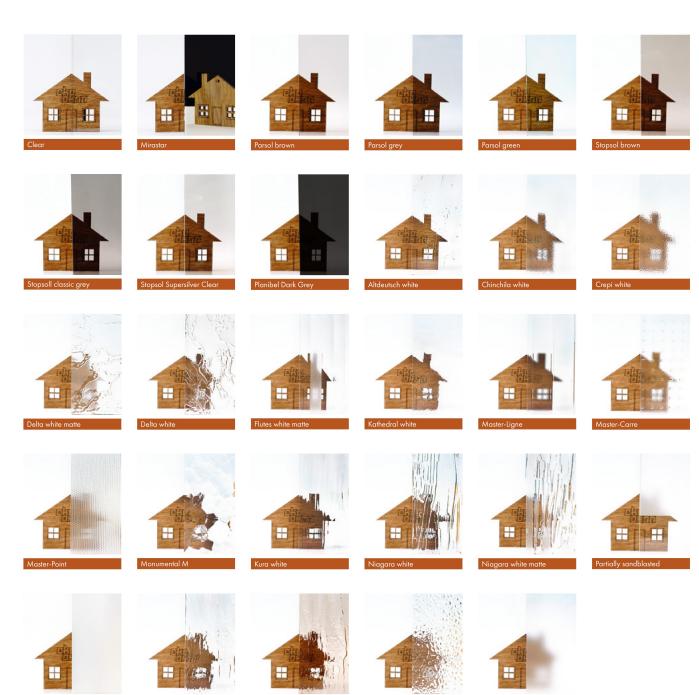


#### Solar control

Solar control glass (selective, absorptive, or reflective) limits the flow of light and reduces the amount of heat energy entering interior spaces.

## **DECORATIVE GLASS PANES**

Decorative glass is an excellent choice for windows, doors and partition walls. Decorative glass panels are suitable for homes, offices, shops, hotels, and restaurants. Depending on the selected type or pattern, it can not only increase privacy, but also brighten the interior, making it optically more spacious, which is another advantage. In addition to standard matt acid-etched glass, we also offer glass in a wide range of colors, as well as ornamental glass available in many designs.



## **MUNTIN BARS**

Muntin bars give windows an elegant and distinctive character, and in some cases, they serve as an essential decorative element reminiscent of historical architectural styles.



#### internal decorative muntin bars

Available colors of muntin bars: gold, matte gold, matte silver, white Size: 8 mm



#### internal decorative muntin bars\*

Available colors of muntin bars: RAL palette, veneer package Size: 18, 26, 45 mm

\*The color of the muntin bar veneer may differ from the color of the wooden joinery



#### Adhered with duplex

Available colors of muntin bars: RAL palette, veneer palette Duplex width: 20, 24, 30 mm Widths of adhered muntin bars: 22, 26, 32 mm

#### Available colors for duplex:

colours of warm SWISSPACER Ultimate window frame, aluminum



#### Structural

They are located within the window sash construction and divide the glass pane into sections. They are always wooden and match the color of the window sash.

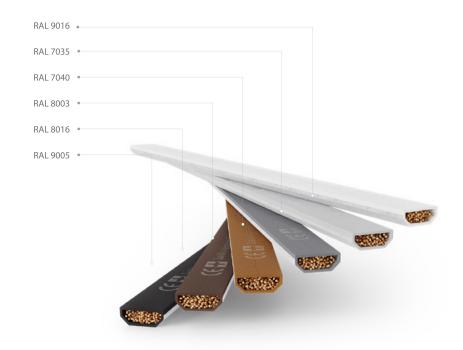


## SPACER EDGES SWISSPACER ULTIMATE

In addition to the standard aluminum frame, we also offer one of the best warm edges available worldwide.

The warm SWISSPACER Ultimate frame eliminates thermal bridges and reduces the risk of water vapor condensation on the edges of the glass.

Frames are available in several colors from the RAL palette.



### **FITTINGS**

#### Perimeter fittings in security classes RC1 and RC2

When choosing windows, it's worth paying attention to the class of anti-burglary protection.

RC1 and RC2 are resistance classes to burglary, defined by the European standard PN-EN 1627:2012. These labels indicate how effective the window technology is as a barrier against burglars, assessed based on very strict criteria.

RC2 windows should be installed where there is a risk of burglary. They are suitable for both high and low floors - areas where thieves can easily gain access, as well as for balcony and terrace doors. RC1 windows, on the other hand, have standard security features

Wooden windows use Roto NX fittings. In wooden doors, GU Door Locks are used.



## **INTERIOR WINDOW SILLS**

Wooden window sills are an optional addition that enhances the aesthetics of wooden joinery.

Thickness: 30 mm

Depth: from 80 mm to 1200 mm

**Types of wood:** solid pine, finger-jointed pine, spruce, oak, meranti

Maximum length: depends on the chosen type of wood

Types of wood finish: colours from the stain palette, RAL colours, clear varnish, clear impregnate,

raw wood

Wooden window sills can have various corner shapes depending on the selected variant.





## **DRIP CAP**



Aluminium

Installed as standard



Wooden
Optional installation

## **DOOR ACCESSORIES**

- Viewer
- Mail Slots
- Pet entrance

For more information, contact our sales representatives.



#### HANDLES AND PULL HANDLES

The range of door handles includes both handles with standard backplates and separate ones (handle-insert). They are appreciated for their variety of designs, colors, handle functionality, and anti-burglary properties.

In addition to standard window handles, we offer handles with a button or locking key to prevent window opening. We also provide a wide selection of shapes and colors, making it easy to match them to the appearance of the selected joinery.

For external doors, we offer elegant and modern door handles. They can come in different shapes and lengths. We also offer solutions such as handle grips, which limit access to the building from the outside..









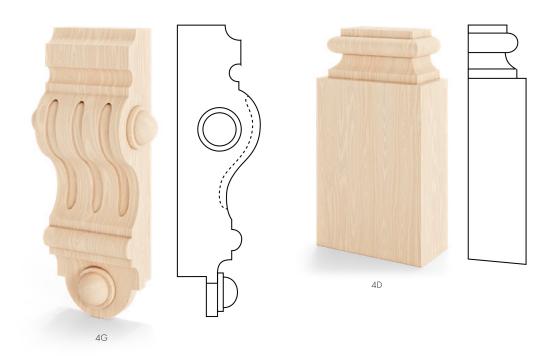
Pull handle P1 Pull handle P5 Pull handle DP70 Pull handle DP80

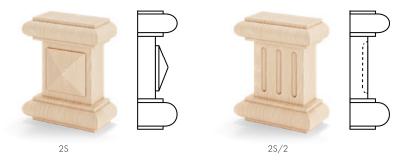
There are many different designs of handles and grips available. For more information, please contact our sales representatives.

## **TOP SECTION DESIGN**









We offer various styles of top sections tailored to selected systems.
The catalog presents basic models; the full range is available from our sales representatives

### WOOD COLOR PALETTE **STANDARD**



RAL COLORS



#### LAZUR COLORS



The color scheme of the patterns should be treated only as an indicator, as there may be differences in the shades of individual colors depending on the type of wood, its natural color, and the thickness of the applied topcoat layer. The color samples are shown on pine and meranti wood. The presented colors may differ from the actual ones.