

Renovation of old buildings and monument protection. An object report



House to the Swan 1605

2023 Gerolzhofen

DÖPFNER window systems for energy-efficient renovation of old buildings and monument protection

STYLE
2

STIL 2 Upgrade



different, of course...

 **DÖPFNER**
FENSTER TÜREN UND MEHR



The "Haus zur Schwane" in Gerolzhofen. **Built in 1605. Undergoing major renovation since 2020. Historically authentic resurrection in 2023.**

Now at the most modern energy level: **KfW Efficiency House | Listed building standard 85**

The "Haus zur Schwane" in Gerolzhofen was built in 1605 and has experienced many ups and downs since then. From the old days, The large arched window in the façade, which has survived to this day as a fragment of the original archway, still bears witness to the fact that the building was founded in the early 17th century as the "Schenkstatt und Würthschafft zum Schwannen" of Jörg Trihorn.

Since the Thirty Years' War, the venerable building has seen many different uses, since 1899 again as an inn, and later also as a hotel. When this was closed, it was very quiet in the old "Schwane". Its final use was as a temporary home for asylum seekers in recent years.

When this was no longer an option due to new regulations, the building was sold in a partially desolate condition. Another chapter in the long history began in 2020 - a comprehensive refurbishment of the historic main building and a newer hotel extension behind it.

In the following three years until 2023, 16 apartments, a notary's office on the ground floor and an attic apartment with a graphic design office were built - a total of 1250 square meters of living space and usable space.

The entire conversion was carried out in accordance with the latest KfW energy standards (the front building is an Efficiency House listed building 85 | and the rear building is an Efficiency House 70).

Heating is provided by a **Dachs combined heat and power unit** for the base load, supplemented by a **pellet heating system** for the peak load in winter, which is operated with **CO₂-neutral residual chips** from DÖPFNER production.

A large **photovoltaic system (30 KWp with 46 KW battery storage)** generates around 70,000 KWh of electricity per year, which is sold on to the tenants at low cost, and two publicly accessible charging points for electric cars are installed in the courtyard.

The **15,000-liter cistern** installed under the courtyard collects rainwater from the roof, which is used as service water

A park-like area with a barbecue area, playground, vegetable gardens and terrace for residents will be created in the garden (end of 2023).

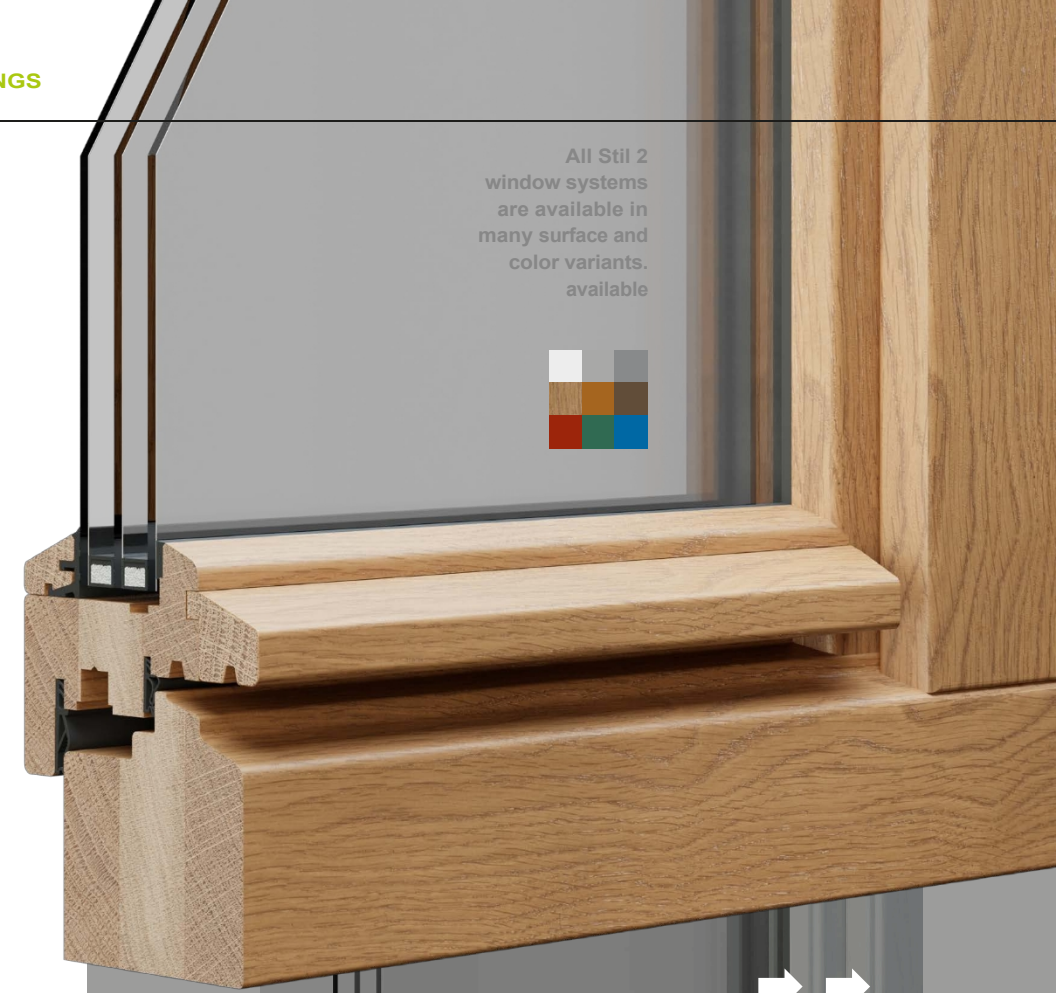
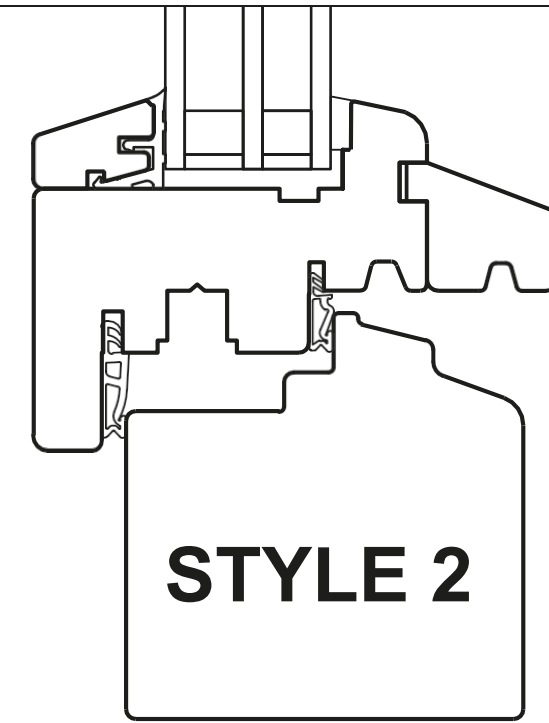
All window elements, entrance doors and a large mullion and transom façade on the rear building were designed and produced by DÖPFNER.

DÖPFNER-STIL 2 UPGRADE window elements were used as the window system for the listed front building from 1605.

Despite the historically authentic appearance demanded by the State Office for the Preservation of Historical Monuments, the Stil 2 windows with their highly heat-insulating triple glazing ($U_{(E)} 0,6 | U_{(W)} 0,81$) makes a significant contribution to the outstanding energy efficiency of the building as a whole.



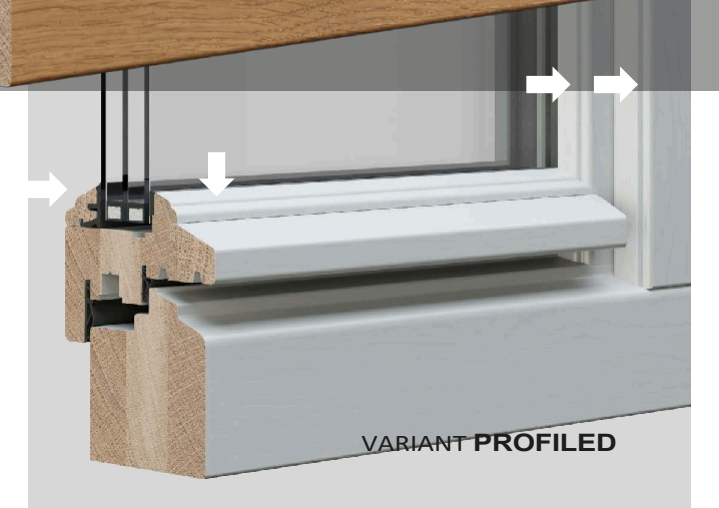
1605
2023

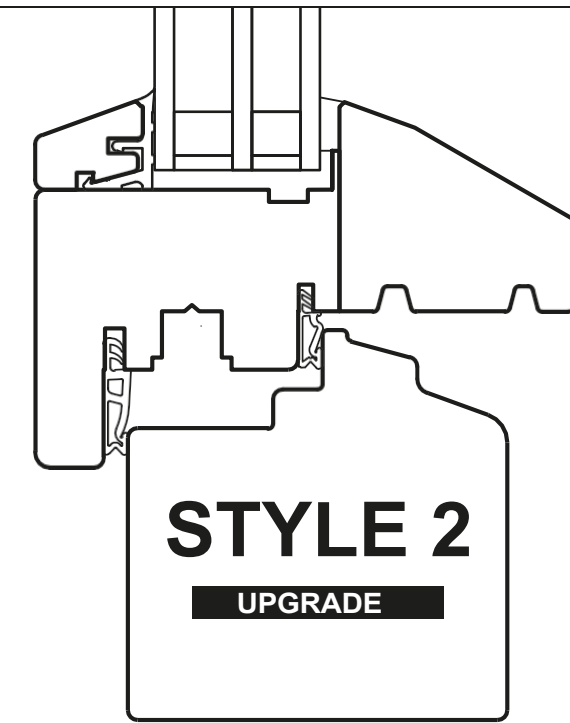


DÖPFNER **STIL 2** WITH STYLE-WEATHER LEGS

- Ideal for the energy-efficient renovation of old buildings
- Elaborate craftsmanship
- Very durable

Our STIL 2 window system is equipped with a **weather bar** grooved slightly downwards on the sash.





DÖPFNER **STYLE 2 UPGRADE** WITH STYLISH WEATHER VENTS IN A NEW LOOK

- **Historically authentic**
- **Ideal for monument protection applications**
- **Elaborate craftsmanship**
- **Very durable**

The upgrade of our STIL 2 window now has a newly designed **WEATHER VANE BASED ON A HISTORICAL MODEL**, which is integrated into the sash and starts **directly at the glass level**.

Optimal historical look. Profile widths minimal. Maximum light. **The new**

DÖPFNER STIL 2 UPGRADE window.

2-casement French casement window with bottom-hung fanlight| without transom| 110 mm

With very slim profile face widths.
Absolutely true to style and very close to the historical model

True to the old rule:
"Forend and transom a hand's breadth and the rungs a thumb's breadth"

Narrow face widths and filigree lines achieve a historically correct appearance.

A sense of tradition and contemporary energy efficiency are not mutually exclusive.

But combining these two specifications in the right style requires a very sensitive coordination of all components.

The latest upgrade of our STIL 2 window system meets the visual requirements for window elements that are suitable for listed buildings and, in combination with ultra-modern

3- Specialist insulating glazing (up to $U_{(g)0.5} \text{ W/m}^2/\text{K}$)

Excellent thermal insulation values

(up to $U_{(w)0.74} \text{ W/m}^2/\text{K}$).



COMPARISON OF VIEW WIDTHS

Construction without transom STIL 2 UPGRADE

Very narrow face widths of the vertical and horizontal sash sections and the resulting maximized glass surfaces

Top KIPP-FLÜGEL (despite construction without transom)

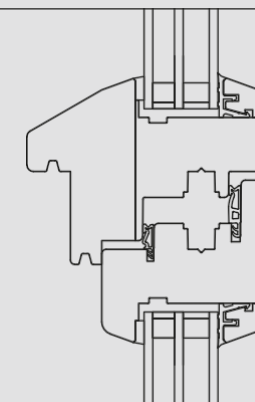
Sash in the clear | 24 mm Sash | 70

Horizontal without transom Total view 110 mm

Forend | View 110 mm

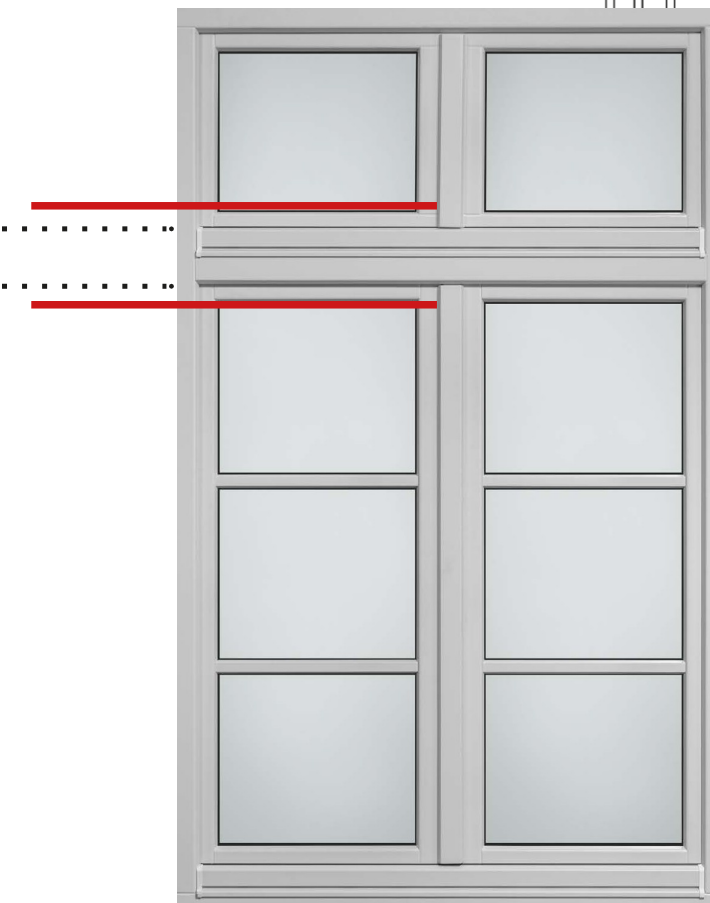
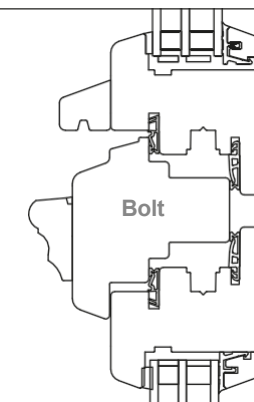
Rung 19 | 26 | 30 | 36 mm

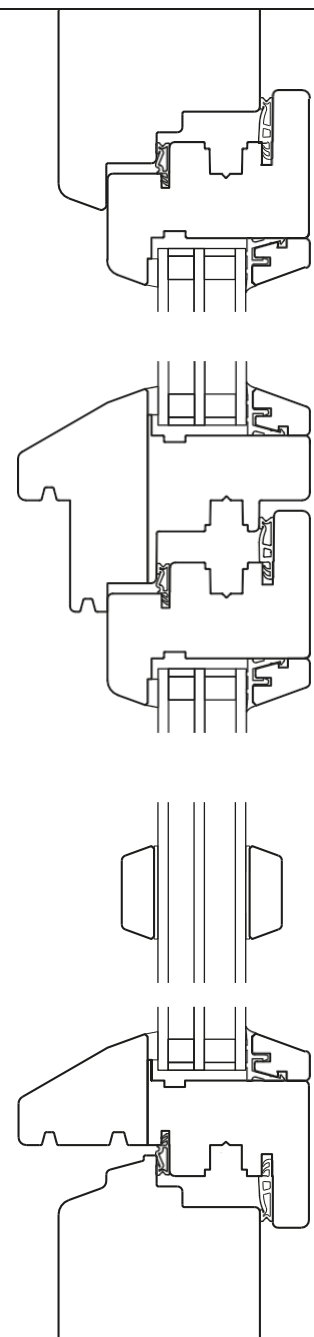
Weatherboard STIL 2 UPGRADE



Conventional transom construction

The visible width of the horizontal profile in transom construction is significantly wider and therefore appears more massive and not as delicate as in the construction without transoms - this is of course also visibly at the expense of the clear glass surfaces.





Upper connection

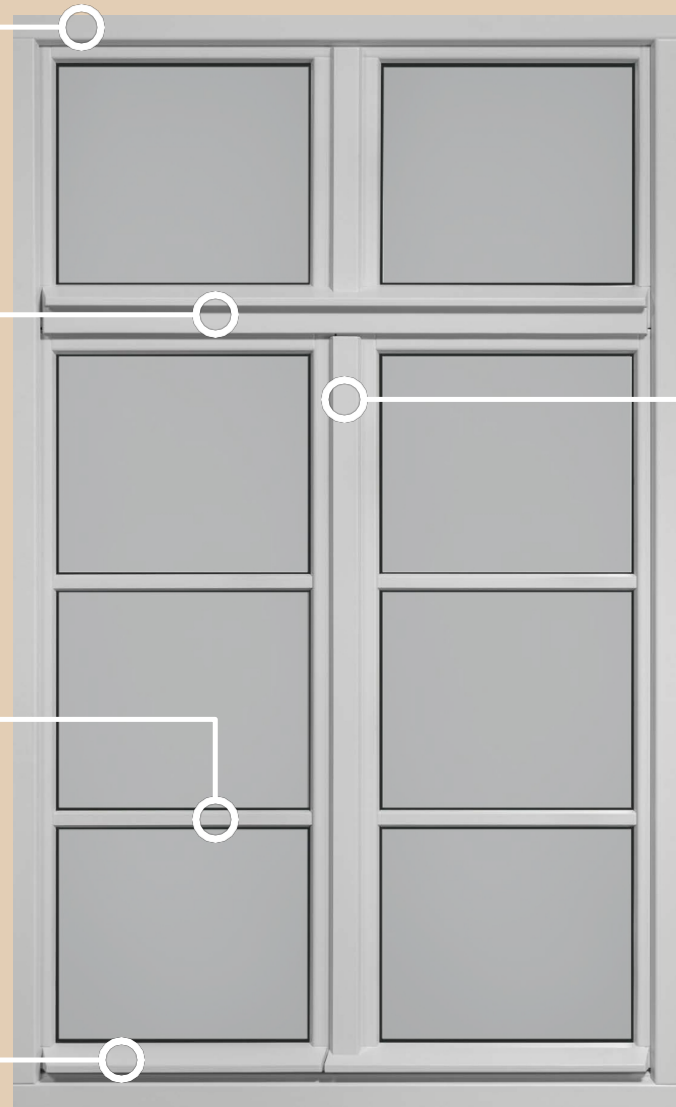
Horizontal without transom

Only 110 mm! Very narrow design in the Comparison to construction with transom

Sprouts

19 | 26 | 30 | 36 mm

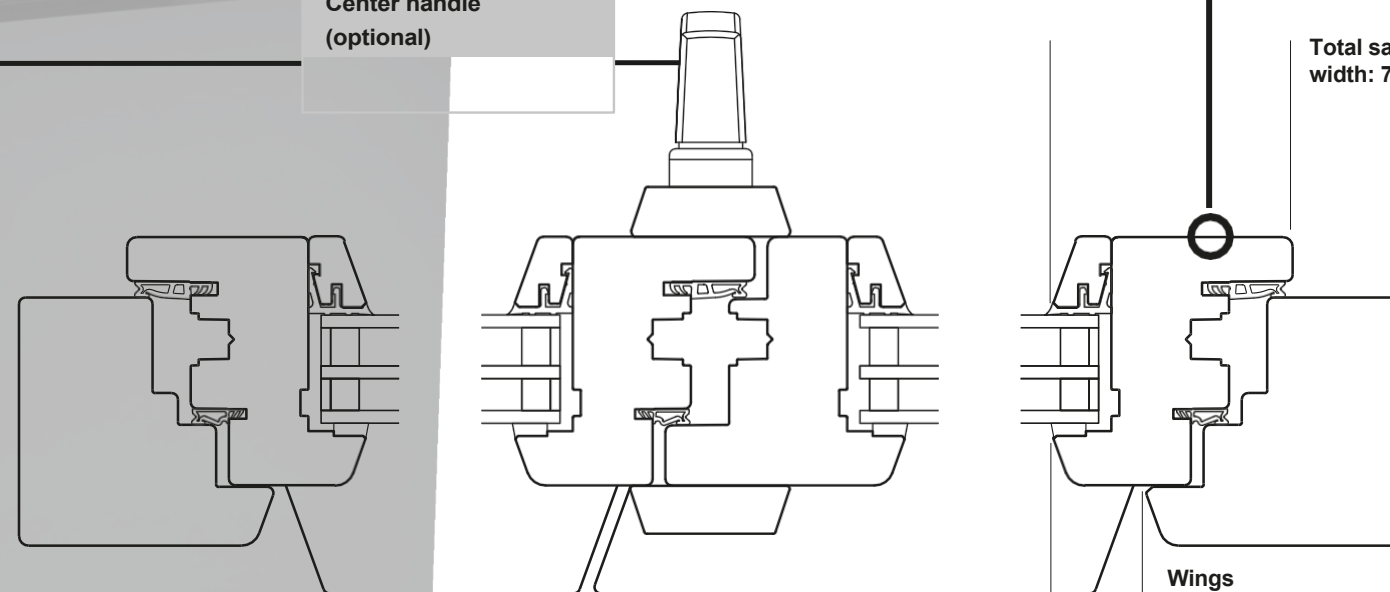
2 UPGRADE



Forend

Only 110 mm!
Very slim design.

Center handle (optional)

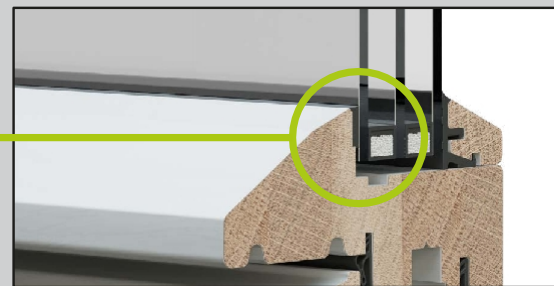


Wings

Only 70 mm wide!

Total sash width: 70 mm

Wings in the light: 24 mm



High-quality, silicone-free dry glazing

- Perfect optics
- Easy-care and permanently beautiful
- Extremely durable
- Optimum sealing



Partially concealed fitting system

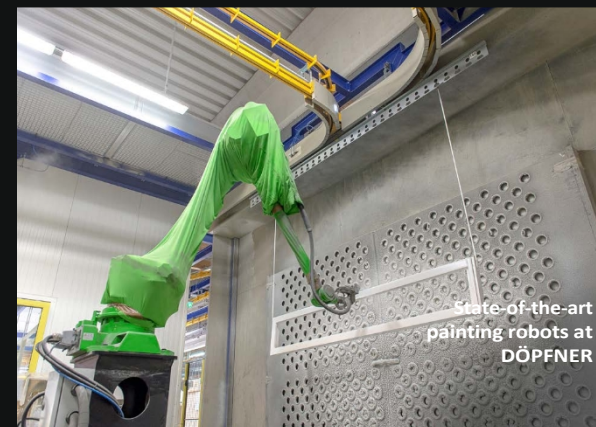
Partially concealed, integrated **VIMATIC 3-D fitting** not visible from the front.



DIAMOND FINISH



The "Adlerhorst", the alpine test station from ADLER



State-of-the-art painting robots at DÖPFNER

DIAMOND FINISH.

The highest quality coating system on the market.

First-class surfaces for long-lasting DÖPFNER wooden windows.

Maximum surface hardness and yet lasting resilience - the combination of these actually contradictory development goals is no longer a vision, but has finally become reality.

The completely new 2-component surface system DIAMOND FINISH is the perfect synthesis of the greatest possible scratch resistance and outstanding, weatherproof long-term durability, despite sun, wind, rain and ice. The outstanding weather resistance has been extensively tested in real-life tests.

DÖPFNER wooden windows - now exclusively with DIAMOND FINISH.

Ultra-weatherproof and durable

Perfect permanent elasticity Highly

scratch-resistant Outstanding wet

grip Perfect appearance

Healthy living and free of harmful substances



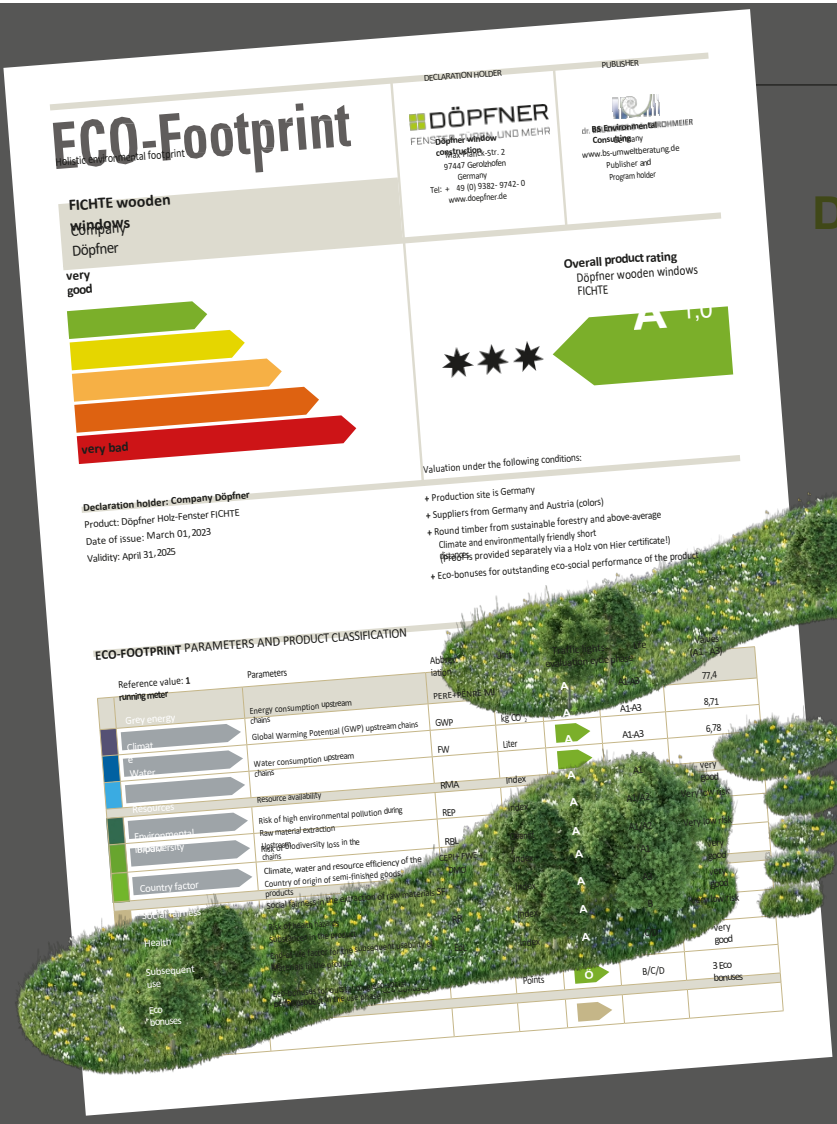
Certified sustainability.

ÖPFNER-STIL 2+ STIL 2 UPGRADE windows now have an ECO-FOOTPRINT!

Ultra-modern thermal insulation.

Historic appearance.

Outstanding energy efficiency.



DÖPFNER is now the first window manufacturer in Germany to implement a product-specific, scientifically based ECO-FOOTPRINT rating for its entire range of timber and timber-aluminum window elements.

The ECO-FOOTPRINT is a holistic ENVIRONMENTAL FOOTPRINT that makes the ecological impact of the upstream chains for the various window frame materials, such as wood, aluminum and PVC, effectively and reliably comparable.

Incidentally, the visual similarity with the already familiar energy ratings of electrical appliances is entirely intentional!

The new environmental footprint provides assessments of the various environmental aspects in the form of an intuitive traffic light system, from green to red - from A to E.

A DÖPFNER-STIL 2/STIL 2 upgrade wooden window made of spruce achieves a score of 1, while a PVC-aluminum window only achieves a score of 4.

The ratings are based on sound scientific evaluations.

WOOD STYLE 2/STYLE 2 UPGRADE | 88

U_(w) 0.74

U_w values for reference window 1230 x 1480 mm in accordance with DIN EN 14351-1:2010-08, A1:2010 | Wood type FICHTE | Glass specification Ug 0.5 | Glass spacer SWISSPACER ULTIMATE

Unit of all U-values is in W / (m²K)
Values determined by calculation. Technical changes and errors excepted!

Subject to color deviations due to printing! Original color samples are available from your local Döpfner dealer.

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 **DÖPFNER**
FENSTER TÜREN UND MEHR