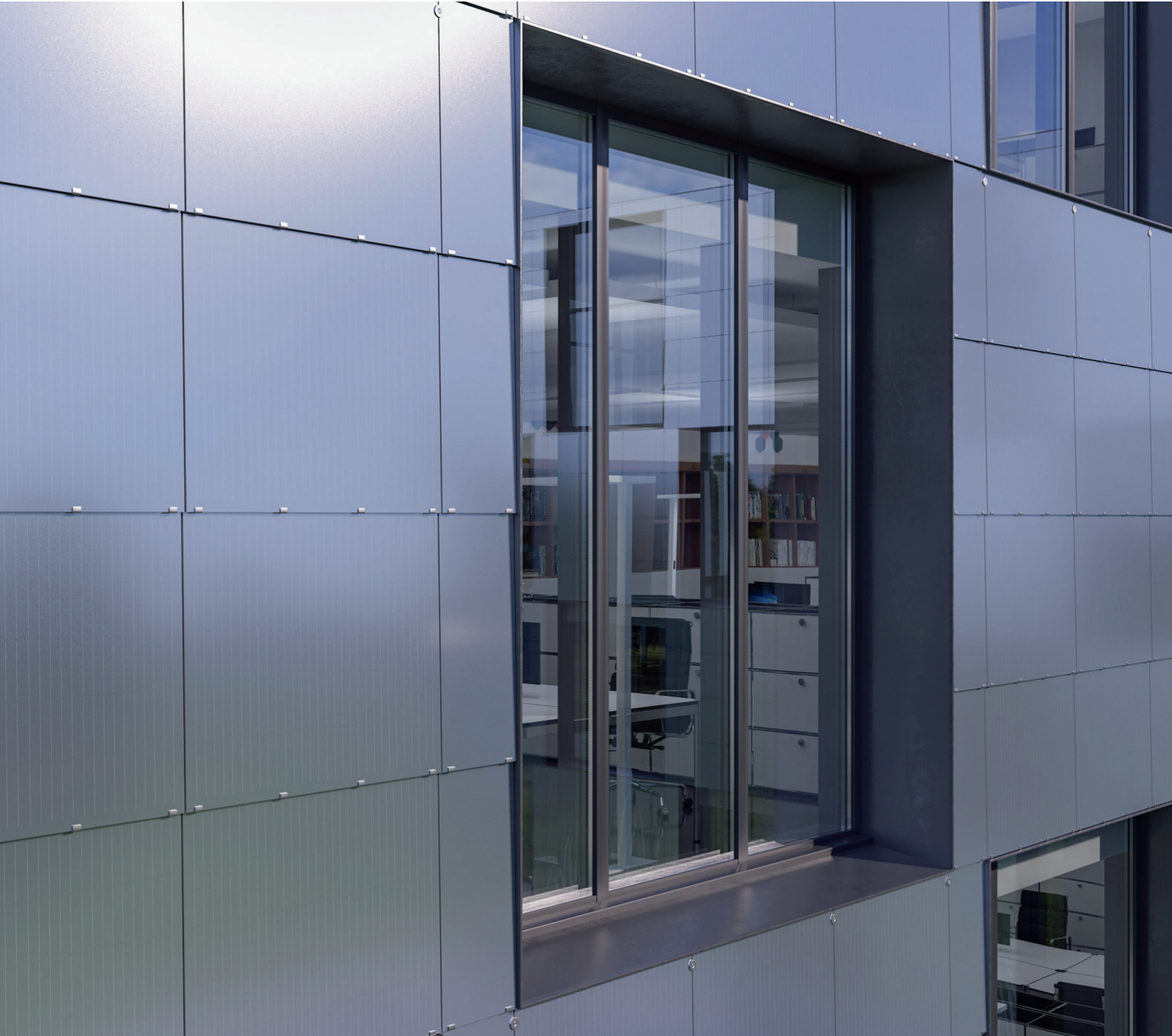




Sustainable and attractive:

PHOTOVOLTAIC SOLUTIONS IN A RANGE OF COLOURS





Detached house in Nänikon, canton of Zurich. Sunskin façade in a special red colour in combination with Largo Carat Ruby fibre cement panels from Eternit. These products are only available in Switzerland. Photo: Eternit (Schweiz) AG

Many options, one goal: Gain a beautiful amount of energy

It is common knowledge that the sun's energy is inexhaustible and available to all of us free of charge. So, understandably, for many years, photovoltaics has been one of the key technologies for producing electricity sustainably. Many people who buy photovoltaic systems are motivated mainly by ecological factors. Because every kilowatt hour of solar power replaces the same amount of energy generated by conventional means. And less fossil fuel means avoiding harmful CO₂ emissions and supporting climate protection.

Against the backdrop of falling purchase costs of solar panel systems and rising electricity prices, photovoltaics is becoming an even more attractive option. This is because self-generated solar power shields you from energy company price increases. National subsidy programmes also contribute to the fact that more and more solar panel systems are being installed on roofs or integrated into façades.

And let's not forget: photovoltaics also makes economic sense. With a home solar panel system, at least part of the electricity generated is consumed directly on site. This reduces the demand on the electricity grids and the need for the expansion of high-voltage lines to transport electricity, for example.

For architects and builders, the installation of solar panel systems often meant a serious compromise when it comes to the appearance of the building envelope. This is because PV modules take up a lot of space and have, up until now, not been particularly visually appealing. But not any more! Innovative processes now make it possible to design solar glass panels to suit the customer's preferences. In this brochure, we showcase various options for generating electricity that are not only as sustainable as possible, but also particularly aesthetically appealing.

The creative solution: solar glass with digital printing

With digitally printed PV modules, façades and roofs can be designed that are both creative and sustainable – thus enlivening the otherwise drab look of solar panel systems. The process allows for almost unlimited possibilities in terms of design and colour preferences, with individual patterns possible as well as photos or logos. The print is designed to achieve a perfect balance between the colour saturation and performance of the solar modules.

With digital printing, the ceramic colour is applied to the back of the front glass so that it is protected inside the solar module. The effectiveness of digitally printed modules varies depending on the motif by colour-neutral solar glass. The digitally printed front glass panels are installed in the modules by PV manufacturers.

At a glance

Functionality

Individually printed solar glass; retains its colour.

Aesthetics

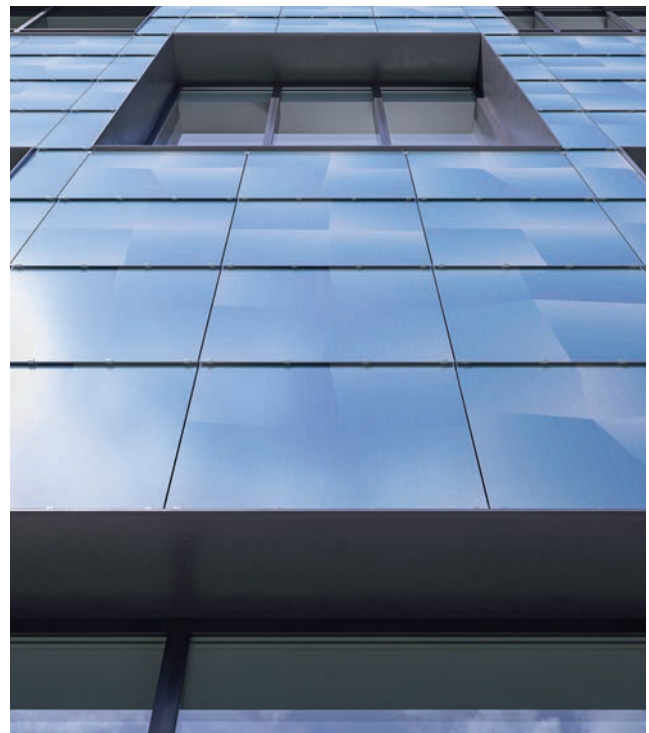
Maximum flexibility in design and colour preferences.

Areas of application

Façades and roofs.

Sustainability

High efficiency; opens up new options in terms of application to increase solar energy production.



	Efficiency	Versatility in design	Variety of applications	Energy payback time (EPBT)
Digital printing	● ●	● ● ●	● ●	● ●
Screen printing	● ● ●	● ●	● ●	● ●

The subtle solution: solar glass with screen printing

Requests for monochrome and full-surface colour for the front glass on PV modules are best fulfilled using the screen printing process. The colour here is achieved based on the principle of interference. In the process, the sun's rays are refracted, like in a prism. The colour layer only allows light to pass through that generates energy in the solar cell – and only the wavelengths that produce the desired colour are reflected. As a result, there is only a small loss of power in the solar module in return for attractive colour effects.

In the screen printing process too, the colour is burnt into the glass at position two, making it permanently durable. The screen printed front glass panels are installed in the modules by PV manufacturers.

At a glance

Functionality

Monochrome printed solar glass; retains its colour.

Aesthetics

Large choice of colours.

Areas of application

Façades and roofs; also for listed buildings if the modules are colour-matched to the building envelope.

Sustainability

Very high efficiency; opens up new options in terms of applications to increase solar energy production.



	Efficiency	Versatility in design	Variety of applications	Energy payback time (EPBT)
Digital printing	● ●	● ● ●	● ●	● ●
Screen printing	● ● ●	● ●	● ●	● ●

Your contact

Before starting a project, we need detailed information about the glass type and thickness, colouring, dimensions, etc. To find the right contact person, please send us your enquiry by e-mail to specification@glastroesch.com

We'll be happy to advise you!



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components, are subject to strict quality criteria. Swiss commitment to quality, excellent service and reliability are just some of our core values.

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