



**SOLAXESS**   
white solar technology

**100% integrated  
photovoltaics**

Your partner for the production of  
BIPV elements - active facades

[www.solaxess.ch](http://www.solaxess.ch)

# Construction + Energy = Active facades

## Our expertise

Solaxess is a Swiss company that specialises in the **high-tech solar sector** and works closely with the CSEM (Swiss Center for Electronics and Microtechnology).

Solaxess develops, manufactures and markets nanotechnology-based films that can be integrated into photovoltaic (PV) panel manufacturing process.

Our films enable PV module manufacturers to provide architects, developers and ultimately owners with white or light-coloured active **full-building elements that are cost effective, durable and aesthetically pleasing.**

Solaxess brings the building envelope into a new era. Facades and roofs become **active and beautiful.**

## Your sustainable construction

Building together the buildings of tomorrow, with our shapes and colours.

Our perfection makes solar energy invisible.



Add colours to  
your projects  
thanks to our  
technology

## A product adapted to your operation

We support you with the integration of our films into your standard fabrication process.

Our technology works with standard PV module production lines, as well as more sophisticated automated production lines.

With our shapes and colours, you allow architects and designers to better integrate your photovoltaic panels in their building concept. They can incorporate **renewable energy** into their design without compromising their aesthetic vision.



A Curved CIGS solar panel  
B Standard module with PERC cells  
C First realisation in Boudry/Switzerland



Our patented technology makes  
facades active and enhances the  
architectural design.

# A revolutionary innovation

**Revolution**  
**SOLAXESS**<sup>+</sup>  
 white solar technology

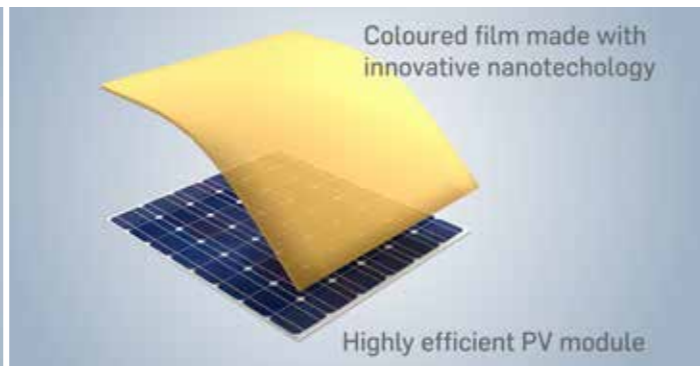
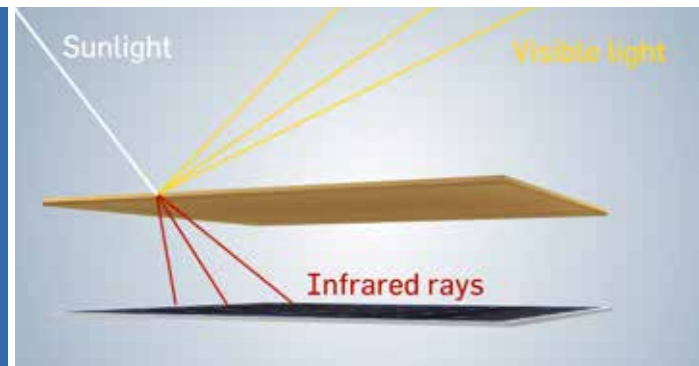
Our technology acts as a selective mirror that **reflects a part of the visible light and transmits infrared rays.**

This unique feature allows PV modules to appear white or coloured to the human eye, hiding the solar cells, yet retaining an excellent power output.

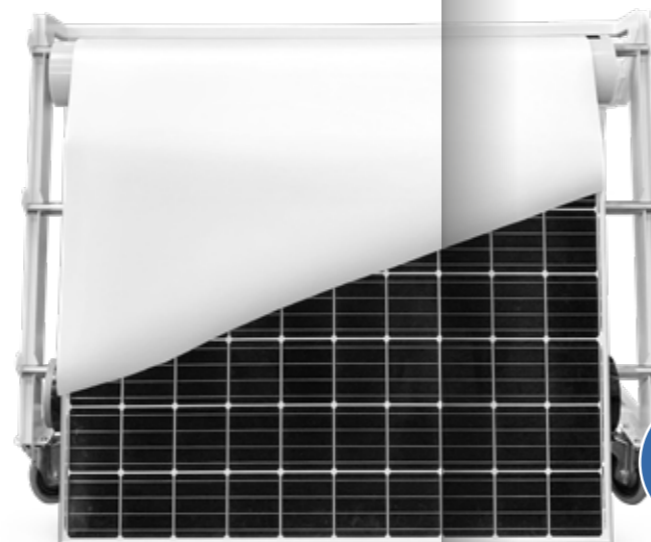
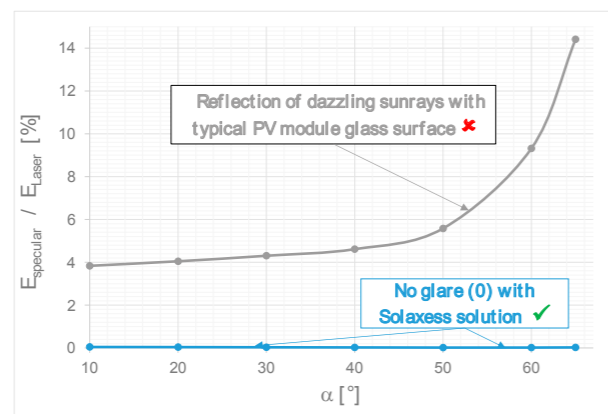
Our film is **compatible with any solar cell technology that is efficient within the infrared region of the solar spectrum.**

Mainstream PV technologies based on c-Si – comprising 85% of the current market – and thin-film CIGS are thus compatible with our products.

- A Film production tool
- B White and coloured films
- C Panel with PERC cells
- D Roll of 1.67m x 100 to 300m



Solaxess supports PV module manufacturers to adapt their product to architectural needs.



## Strengths

- aesthetic design** provides the best trade-off in terms of aesthetics and performance
- exclusive technology** patented and usable by any PV module manufacturer
- simple logistics** can be delivered worldwide - just a few rolls will cover 10'000 m<sup>2</sup>
- flexibility** can be adapted to any size and shape required
- customised colour** any bright colour can be manufactured



## Large PV facade power output

Conventional passive facade elements made of plaster, aluminium, marble or other materials can finally be replaced by active PV building elements.

The typical **power output of a PV module with our technology is between 110 and 150 Wp/m<sup>2</sup>, depending on the colour.** Any colour can be developed to match the project design.

Achievable **power** output of mono c-Si PV modules using our films :

White 110 Wp/m <sup>2</sup>	Beige 125 Wp/m <sup>2</sup>	Light Terracotta 127 Wp/m <sup>2</sup>
Light grey 132 Wp/m <sup>2</sup>	Dark Terracotta 147 Wp/m <sup>2</sup>	

# A few key facts

These new attractive facades produce energy and will offer you electrical power independence.

## -10°C Reduced temperature

The film reduces the module's operating temperature. A reduction of around 10°C was measured at the back of the module when the outdoor temperature was 25°C.

Compared with standard black PV modules, this temperature reduction leads to:

- A better relative performance in real outdoor conditions, particularly in warm climates
- Reduced building air conditioning needs

## Simple integration into PV modules

To obtain the best possible performance and reliability, our films are simply added to standard PV modules during the lamination process. Both glass/backsheet and glass/glass configurations are supported.



# At last, photovoltaics become 100% building integrated

## Photovoltaic system as an integrated building material

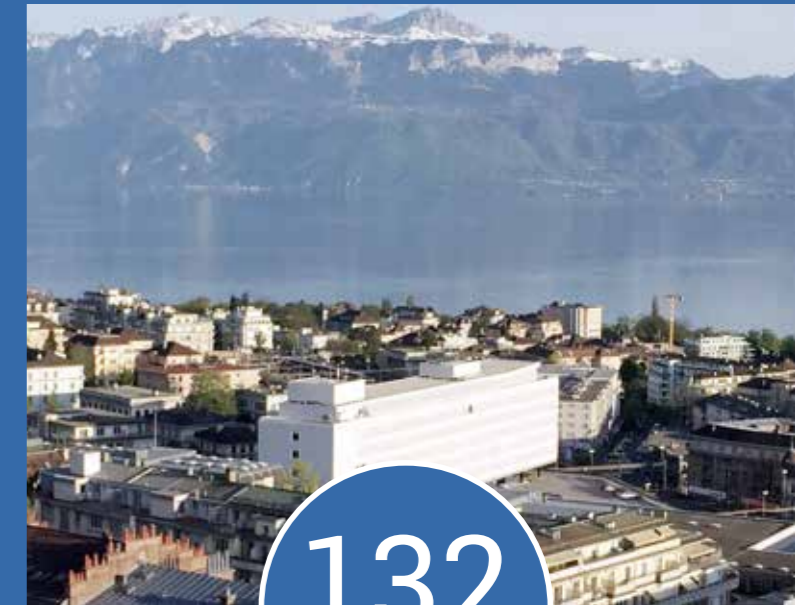


A idolza.com - Architectural Mood  
B Architect: Richard Meier

# The BIPV future

Current technologies make it possible to make large administrative or industrial sites energy producers.

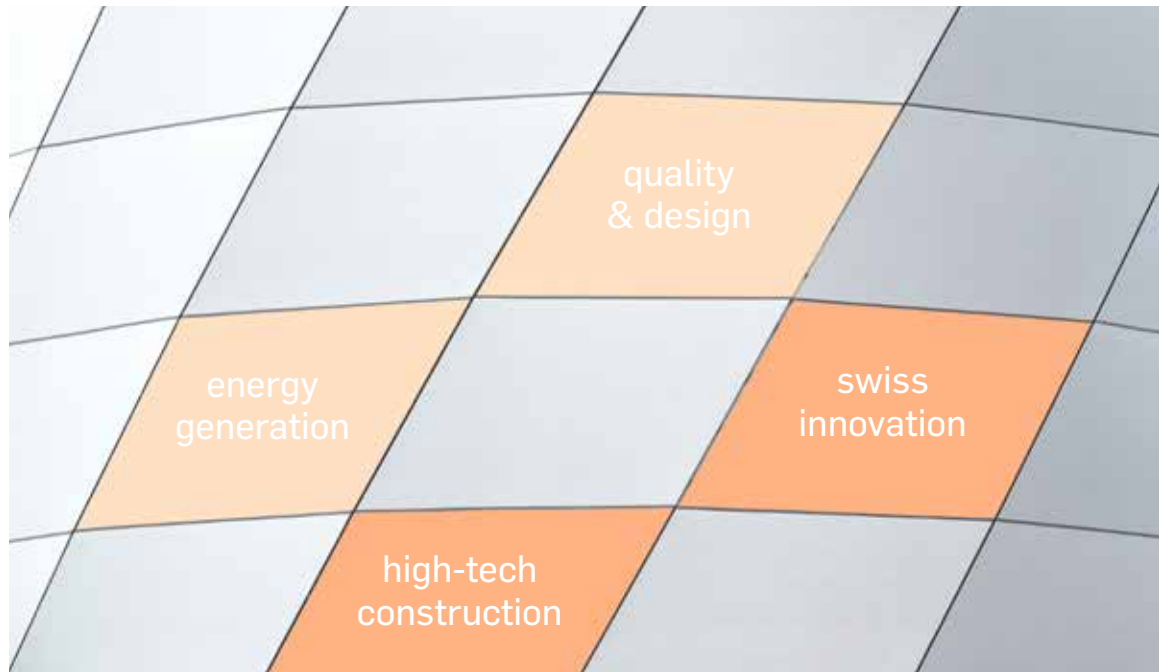
The building below could produce 132 MWh per year, which corresponds to the annual consumption of 35 family homes.



132  
MWh/year



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“We shape our buildings and afterwards our buildings shape us”

Sir Winston Churchill



**BE SMART**

We are part of BE-Smart.  
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## Exclusivity

**Swiss innovation, quality, design, durability, energy generation, and high-tech construction** all brought together in one place:

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