



SolTech Energy

Can glass produce electricity?

In exclusive cooperation with:

sapa:
buildingsystem
ARCHITECTURAL ALUMINIUM SOLUTIONS



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Absolutely!

Glass can produce electricity! SolTech ST are semi-transparent solar panels that make it possible to generate solar energy from glass facades, windows and glass roofs.

Semi-transparent solar panels provide a pleasant indoor climate with a reduced need of cooling that, at the same time, can be esthetically integrated in a number of ways in the building's overall construction.

Unique cooperation-agreement

presents Solar Energy in new ways



SolTech Energy and Sapa Building Systems have signed an exclusive cooperation agreement where we work with solar energy for:

- Facade systems
- Windows
- Doors
- Glass roofs
- Sun shading
- Railings, and more.

The cooperation agreement applies to the Nordic and Baltic regions. The applicable Sapa profile systems are: 4150, 5050, 1086 and 7000. Sapa's installation network in the Nordic and Baltic regions will be responsible for the installation of SolTech ST.



At Nordbygg 2016, SolTech Energy and Sapa Building Systems presented a new type of solar cells where you can even design the active solar cells' producing surface. All dark surfaces in the picture with the tree and children are active solar cells. The grey tones are examples of active solar cells with varying degrees of transparency.



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Energy efficient solutions from Sapa Building Systems

Sapa Building System's aluminum solutions make it easy to design modern houses that meet high demands. Our product offer is flexible and well thought out with a clear focus on energy efficiency and sustainability.

Solar shading and photovoltaics can easily and aesthetically be integrated in Sapa facades and glazed roofs (see below) in order to achieve comprehensive BIPV solutions with positive energy balance.

SolTech ST is a technically advanced product but still simple. See as an insulating glass with two cables concealed in the profile of the cover.



SAPA FACADE 4150

Sapa Facade 4150 is a highly flexible, very well insulated curtain walling with a unique two-stage seal. Thanks to a wide range of external decorative profiles and interior mullion and transom profiles, the system offers great freedom of choice. Sapa Facade 4150 is available in four insulation versions up to passive house level certified by the notified body ift Rosenheim.



SAPA FACADE 4150 SSG

Sapa Facade 4150 SSG (Structural Sealant Glazing) is an all-glass curtain walling which gives the facade a smooth surface thanks to a flush-fitted all-glass look with slender joints. The glasses are securely anchored with mounting brackets into the mullion and transom profiles. The glass wall operates as a waterproof full weather shelter.



SAPA ROOF GLAZING 5050

Sapa Roof Glazing 5050 gives great freedom of design, allow large span and is easy to connect with our curtain wall systems 4150 and 4150 SSG into a homogeneous and functional unit. Sapa Roof Glazing 5050 enables strictly speaking any shape of the roof such as pulpit, saddle or cantilever roof.



 **The easiest choice**
is the one you don't have to make

Solar cells, window panes and sun shading will no longer be considered as separate components of a building. In one and the same product from SolTech Energy; You get a wide selection of formats, possibly with a U-value as low as 0.6, with the shading You want – and at the same time – glass panes that produce electricity.

Deciding on a solution without having to choose makes life simpler for everyone: customers, architects and builders!

The focal vision in SolTech Energy's business is that every building will come to produce more energy than it uses. This vision will become more than a possibility as more and more people utilize both roofs and facades in an optimal way.

Thanks to a unique framework agreement with Sapa Building Systems AB, we can offer solutions for complete façade systems, windows, doors, glass roofs, sun shading, balcony railings, and more.

Let yourself be inspired by the possibilities of constructing both aesthetic and energy-smart buildings.



The adjacent pictures shows some suitable areas of use and possible installation sites.

SolTech ST

Solar PV and solar shading in one and the same product

By integrating sun-shading properties in a glass roof or glass wall/s, we reduce the need of air conditioning in summer. Now, in addition to taking advantage of this practical and cost effective solution, you can also utilize glass with integral sun shading to generate solar energy.



Also as insulation glass

For buildings requiring windows that provide both insulation and energy, SolTech ST can also be ordered as insulation glass with argon, in either double or triple glass designs.

Simple installation

SolTech ST can be easily installed in glass roofs or glass facades by making use of Sapa's profiling systems as needed. All of Sapa's certified installers in the Nordic and Baltic regions are ready to provide quality installations (beyond this area a global network of installers/suppliers can also be found). This widespread coverage also enables architects and designers to "sketch-in" SolTech ST for use in future buildings and projects.



Flexible possibilities

SolTech ST can be delivered in various grades of transparency – from 10 to 90% - You choose according to your requirements in increments of 10%. If, for example, you choose 40% transparency, you get 60% of maximum output power.

We offer ST- panels in 600 mm width increments, starting at 600 up to 3000 mm, thus; 600, 1200, 2400, and 3000 mm. Custom tailored sizes are also possible. Flexibility in shading is also provided. For example, since the need of sun shading is normally higher for a roof than for a façade, a lower transparency for the former is usually desirable, while a higher transparency – allowing a better view – is often the more desirable choice for a façade.





Truly price worthy – here is the explanation:

Today, our products can be sold and installed at prevailing commercial prices. There are several reasons for this:

- We offer an effective installation network: Sapa's certified installers throughout the Nordic region and the Baltics.
- You save all costs for external solar shading – It's built into the product.
- In Sweden, you can receive investment subsidies up to 1.119 SEK/m² covering the entire installation of SolTech ST panels.*
- You produce your own electricity!

(*This figure reflects a 30% subsidy and maximal subsidy-based installation costs)





Choose solar energy for reasons of environmental concern

Everyone knows the sun is an environmentally positive source of energy: All you need, for example, is a solar installation of 100 square meters to reduce the yearly discharge of CO₂ into our atmosphere by an amount equal to the carbon-dioxide released by an average Swedish car cruising one lap around the equator! The CdTe-technique we use makes possible the type of solar cells that are quickest (approximately one year) to produce the amount of energy used in their manufacture. In addition, we offer a destruction-and-recycling guarantee for all damaged and worn out panels and, in this way, conserve the earth's resources.



Use the potential
in a glass facade!





Efficient and esthetic solutions

A Swedish research study has revealed that one of the primary reasons people choose not to use solar energy is that installations do not look neat and harmonious. SolTech Energy's products replace other building materials and meet very high esthetic standards.

SolTech ST is the intelligent choice in many applications where there is a strong desire to retain sunlight and a view, and yet still be able to reduce the need of air conditioning and obtain a comfortable indoor climate. SolTech ST is available in several colors and patterns that can, for example, allow a group of panels to be specifically shaped and located in a glass façade so that together they form a company logo of impressive size and impact.



SolTech Energy

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Photo caption/advisement: This brochure shows photos of buildings that do not contain SolTech Energy's products but do serve to illustrate and inspire what can be built.

