

ISSOL's press kit

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COLOURFUL PHOTOVOLTAIC MATERIAL

PHOTOVOLTAIC SAFETY GLASS

For decades, architects have been waiting for solutions to customize the colour of solar elements. A combination of photovoltaic technology and glass know-how gives birth to colourful laminated glasses, which are producing electricity.

Our product is a traditional laminated safety glass equipped with high efficiency crystalline photovoltaic cells (Si).

The use of special interlayers and new screen-printing techniques are giving a visual rendering to the non-longer-so called solar panel; it is a new active material. We manage to maintain a perfect match between electrical efficiency and design.

The product strictly follows photovoltaic and local construction norms. It is manufactured and designed according to the specific geometry and requirements of the building. Its size, shape, thickness or curvature are tailored, just like with a normal glass.

Our product can be used as an alternative to traditional building materials such as wood, stone, siding, Alucobond® or Trespa®. We have the capacity to apply any image, colour, pattern or logo. It is compatible with the majority of façade and roofing systems like curtain walls, cladding systems or glass sealant. We can assemble it in double or triple isolated glass (IGU). We have the possibility to use ETFE foil as replacement material of the front glass.

WHITE, THE DOMINANT COLOUR OF MODERN ARCHITECTURE

White is a way to showcase purity of form. It expresses open, vast, neutral, sterile. Le Corbusier once said, “By law, all buildings should be white.”

Ask PV specialists if white solar technology is possible. The majority will say no. They argue that it cannot be done because light would get reflected, a contradiction to their obsession to make efficient solar panels. At ISSOL, we care for architects and we demonstrate that it is possible while guaranteeing high efficiency. Our product is the result of collaboration between the Swiss company Solaxess, the CSEM in Neuchatel and ISSOL. In its current available version, the efficiency of our white solar technology reaches 90 Wp per sqm.

FREQUENTLY ASKED QUESTIONS

1. Is the product already available?

The product is the result of 2 years of R&D. After that, it went through series of tests to validate the conformity related to photovoltaic norms as well as to specific glass security norms. The first large project was executed in July 2015 in Norway. The product is available since then. The white version is available since January 2016.

2. Is the product made for new or old buildings?

It can be used in both cases either as replacement of old façade elements or for the construction of new buildings. It is particularly adapted to retrofit old buildings to make them more energy efficient. It can be combined with insulation material. In an attempt to modernize the visual aspect of an old facades, it can be installed on vertical palisade separated from the original building structure.

3. Which building types can be equipped with this active material?

This active material has not been developed to make one-time exemplary projects. It is manufactured to comply with the requirements of each building; either as a simple active siding material for industrial halls or for architectural masterpieces. It can be used to meet the needs of the property market in general, up to residential houses.

4. What is the electrical efficiency?

The product is manufactured with the most known and reliable photovoltaic technology, namely the crystalline-silicon-based technology. It is the most affordable and efficient on the market. We use high efficiency mono crystalline silicon based solar cells. A photovoltaic coloured glass with dark tones has an efficiency of 120 to 140 watts per sqm. White colour allows reaching 90 watts per sqm in its current available version. The colour density is an important factor. Efficiency will be improved in the next available version of the product thanks to a narrow collaboration between ISSOL, Solaxess and CSEM in Switzerland.

5. How much does the product cost?

The final cost of the active material is always to be compared to the non-active equivalent. In most cases, the active material is more cost effective because the price of the photovoltaic technology that was inserted inside the product has been divided by a factor of 8 in the last decade. This extra cost can be amortized in 6 to 8 years while it will keep producing electricity for more than 30 years.

6. What does ISSOL provide?

To start a project, a design study is necessary. Our engineers will listen to your specifications. Samples are manufactured. They will need to be approved by the customer or architect before series are manufactured. Our team of engineers and project managers will support you for the entire project implementation, if necessary.

WHO WE ARE

ISSOL is a glass manufacturer and a project developer of Active Glazing solutions. We offer highly-technological content products for the building integration of the photovoltaic technology (BIPV). In collaboration with the world's most famous contemporary designers, ISSOL develops beautiful active buildings that generate their own electricity using the free energy of the sun.

The ISSOL production plant is located in Belgium and is under periodic audit of the German VDE Testing and Certification Institute. The design office and production are certified ISO 9001 and 14001.

CONTACTS

For additional information, please contact.

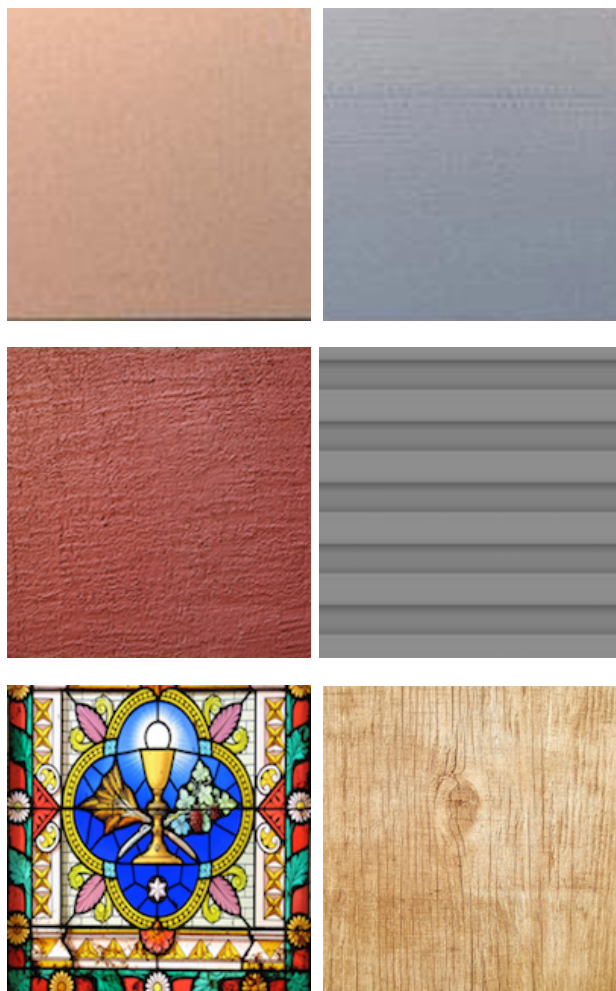
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RENDERING ILLUSTRATION



SOME REFERENCES

- http://www.ISSOL.eu/printed_glass/We_Care_Hotel.JPG
- www.issol.eu/printed_glass/Solsmaragden_Office_Building_Oslo.png
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