

DA||GLASS

BIPV PANELS



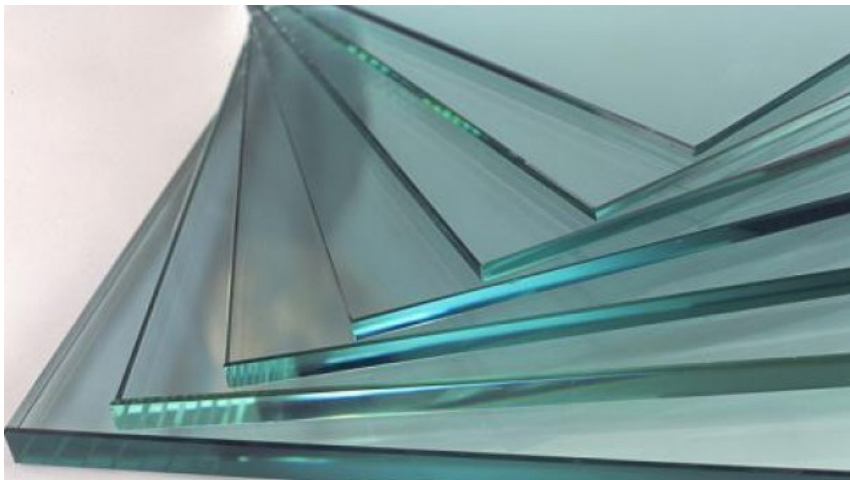
**Over 30 years
of experience in
craftsmanship of
highly advanced
glass technology**

BIPV PANELS

DAGLASS BIPV is a technology in which photovoltaic modules form an integral part. BIPV modules are used to replace building elements by photovoltaic solutions in the form of building materials constructed in such a way that not only provide all the necessary insulation and strength parameters, but at the same time can generate electricity.

The front of the module contains DAGLASS AR glass with high transparency, high transmittance, low reflectance and low iron content. The glass protects elements placed in the laminate against weather conditions and mechanical loads.

The high transmittance increases the efficiency of photovoltaic cells, and therefore has a direct impact on the power and final efficiency of the module. The low iron content of the glass composition and the anti-reflective coating reduce the absorption of radiation energy. They have a hydrophobic anti-reflective layer that increases light absorption and reduces dust accumulation on the surface. Therefore, they achieve excellent resistance to mechanical stress and temperature changes.



PV GLASS

+4% - 8% MORE TO ELECTRICITY ENERGY PRODUCTION

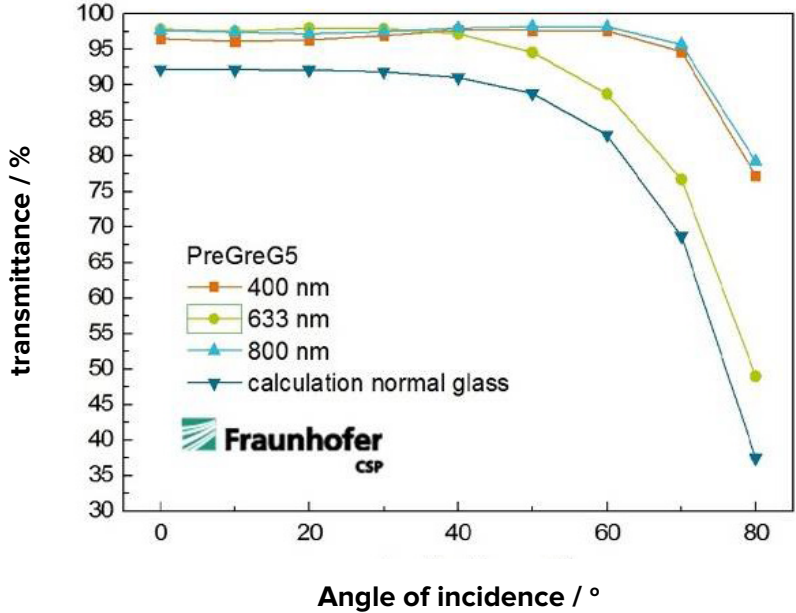
- The DAGLASS Anti-reflective Glass (AR) increases the efficiency of solar collectors up to 4%, confirmed by a research performed by the Fraunhofer CSP Institute.
- We provide several versions of self-cleaning glass for the solar panel, dirty panel generate 1-5% loss of energy.
- Moist glass does not lose transmittance, used frosted prismatic glass loses up to 2% of transmittance.
- Thanks to our technology, the thickness of solar panel glass can be decreased to 2 mm. This provides not only higher efficiency and light transmittance, but also less weight of the solar panel.



PV GLASS

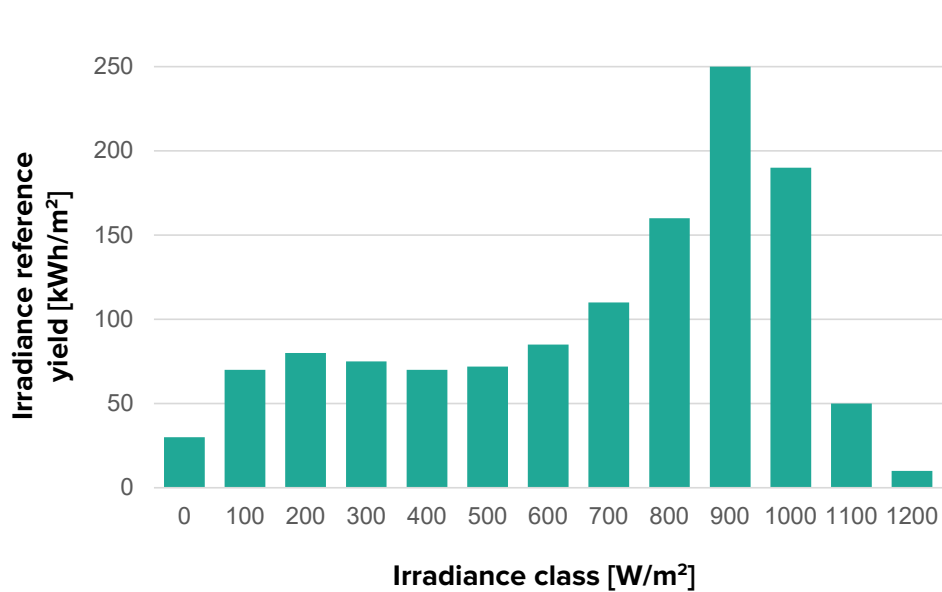
+4% HEMISPHERIC TRANSMITTANCE

The DAGLASS Anti-reflective Glass (AR) increases the efficiency of solar collectors up to 4%, confirmed by a research performed by the Fraunhofer CSP Institute, proved by laboratory tests.

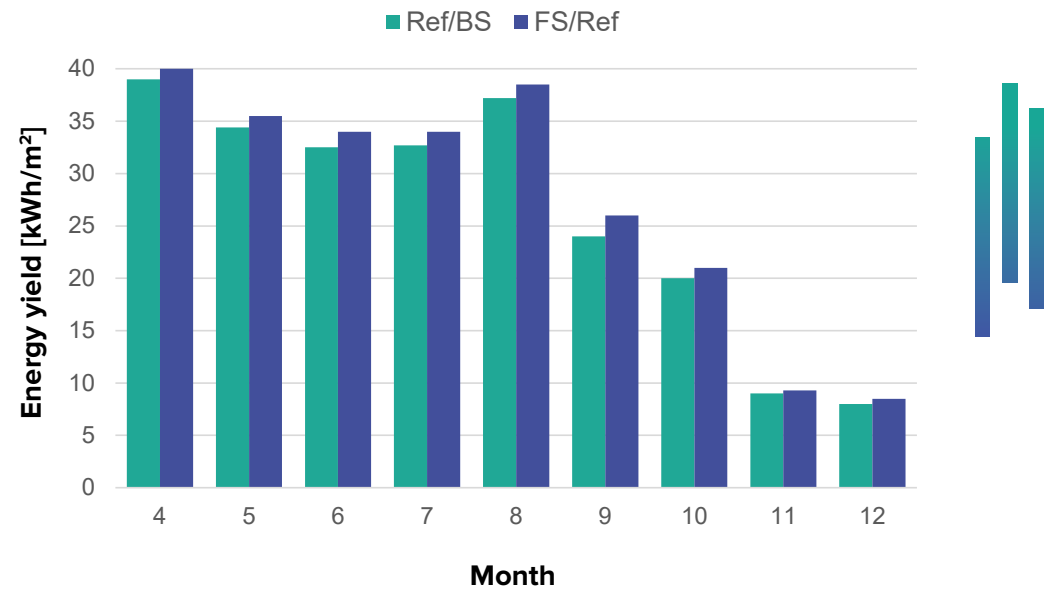


PV GLASS

FUNGLASS – AP3.1 RESULTS OUTDOOR INVESTIGATION



Rys. 1. Reference yield (irradiation) in module plane occurred during the investigation period displayed in class width 100W/m²



Rys. 2. Energy yield of both modules during the investigation period

PV GLASS

+2% SELF-CLEANING

Over 3 years of research and tests in the area of panel contamination and dust. The results are visible in the photo.



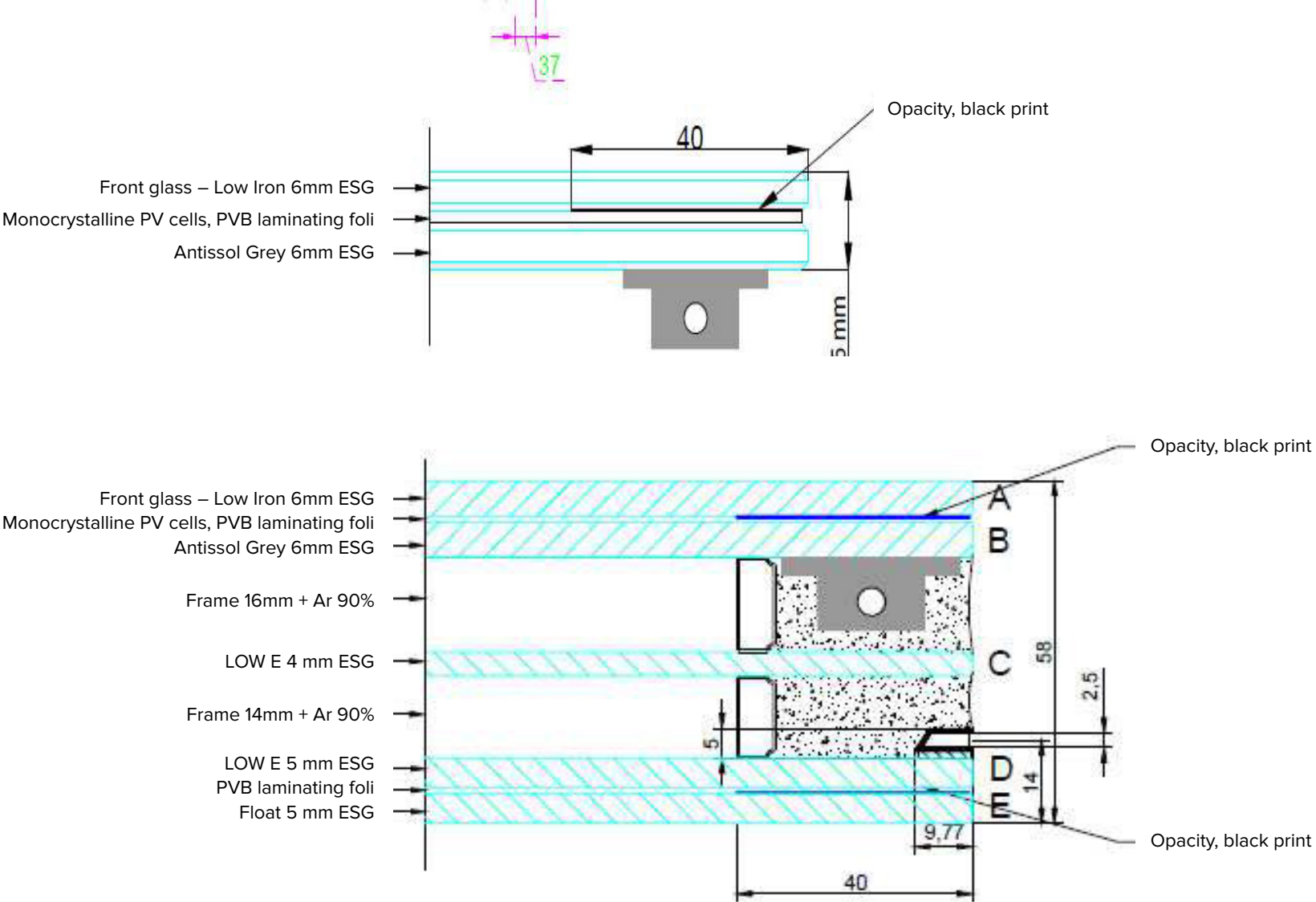
PV GLASS

+2% NO LOSS OF TRANSMITTANCE ON THE WET GLASS

In case of steam/rain condensation on the glass there is no loss of transmittance.



BIPV PROJECTS



BIPV PROJECTS

BIPV panels are made by combining two glass panes (glass - glass) with a special foil. This combination allows you to obtain safety glass, mainly used in construction and architecture. Moreover, the foil used additionally insulates the cells and protects them against external factors.

Modules are selected depending on individual customer needs and requirements. They can have various shapes, colors and sizes, and they can consist of any combination of glass - hardened, semi-hardened, non-hardened, coloured.

In addition to their crucial function that is generating electricity, they are an alternative to traditional building materials used as coverings of various types of roofs or facades. BIPV DAGLASS modules have been adapted to be applied in different parts of the buildings:

- Photovoltaic roofs
- Rooftops for bus shelters and terraces
- Skylights
- Carports & canopies
- Facades
- Railings



PHOTOVOLTAIC ROOFS

PV panels integrated in the form of photovoltaic roof systems are currently the most popular and easily available solutions. These panels integrate perfectly with buildings, maintaining their design and aesthetics, thanks to a large variety in terms of size, color, transparency and shape. DAGLASS offers photovoltaic modules with proper resistance adequate to the existing external loads.



PHOTOVOLTAIC ROOFTOPS

DAGLASS offers products and solutions tailored to the needs of the construction industry, ensuring an integral connection of the photovoltaic installation with the aesthetics of the building. Solar canopies are usually placed near the house or as a free-standing structure. As a consequence, the weather can be observed regardless of the changing weather conditions. It is a unique method of protecting against rain, snow and excessive sunlight. The integration of glass with photovoltaic systems offers the additional benefit of producing green electricity.



PHOTOVOLTAIC SKYLIGHTS

Skylights are an ideal architectural element for the installation of photovoltaic systems due to their location on the roof and horizontal or slightly inclined arrangement. Consequently, the panels are not shaded in any way. In this case, translucent panels are used, which, in addition to generating electricity and protecting against external factors, also allow light to penetrate inside a building.



CARPORTS & CANOPIES

The installation of solar panels in parking lots generates lots of benefits, including creating shade, protecting against shade, hail, snow, and on-site energy production. Usually, light-transmitting glass-glass panels are applied in carports, which also have nice design.

There are also special double-sided panels that generate electricity from the reflected light that falls on the cells from below. The use of such panels can increase the efficiency of the installation by several percents! The photovoltaic parking structure also offers the possibility of integrating various services, such as charging electric vehicles, switching on the lighting or the possibility of connecting billboards.



PHOTOVOLTAIC FACADES

Integration of photovoltaic modules in buildings can be also used as a photovoltaic facade. Photovoltaic panels can replace HPL and HDF panels, and the facade made of them has chic design, can be easily installed, and above all generates electricity.

The technology of integrating BIPV photovoltaic modules meets all the requirements of a traditional facade - it provides thermal insulation and protects against weather conditions and acoustic factors.



PHOTOVOLTAIC BALCONIES

Photovoltaic glass balconies make full use of this surface of the building that is exposed to sunlight. In addition, they are characterized by exceptional chic design, thanks to which they easily fit into both modern and traditional styles of design and architecture. Photovoltaic railings are made of photovoltaic laminate in any size and adapted to different types of fastening to meet individual needs.



Contact

DAGLASS

Innowacyjna 15 St.

36-060 Głogów Małopolski

info@daglass.pl

www.daglass.pl

