

Enfoil is an innovative company in the PV industry. Gathering research centres, industrial partner, experienced administrators that have each strong expertise in the product development, industrialization process, hands-on knowledge of the market.

Enfoil listens to the clients and brings all its knowledge to deliver the right solution to the market needs. With Enfoil, complex PV solutions are not fancy nice-to-have products anymore, they become a must-have energy-generating tools.

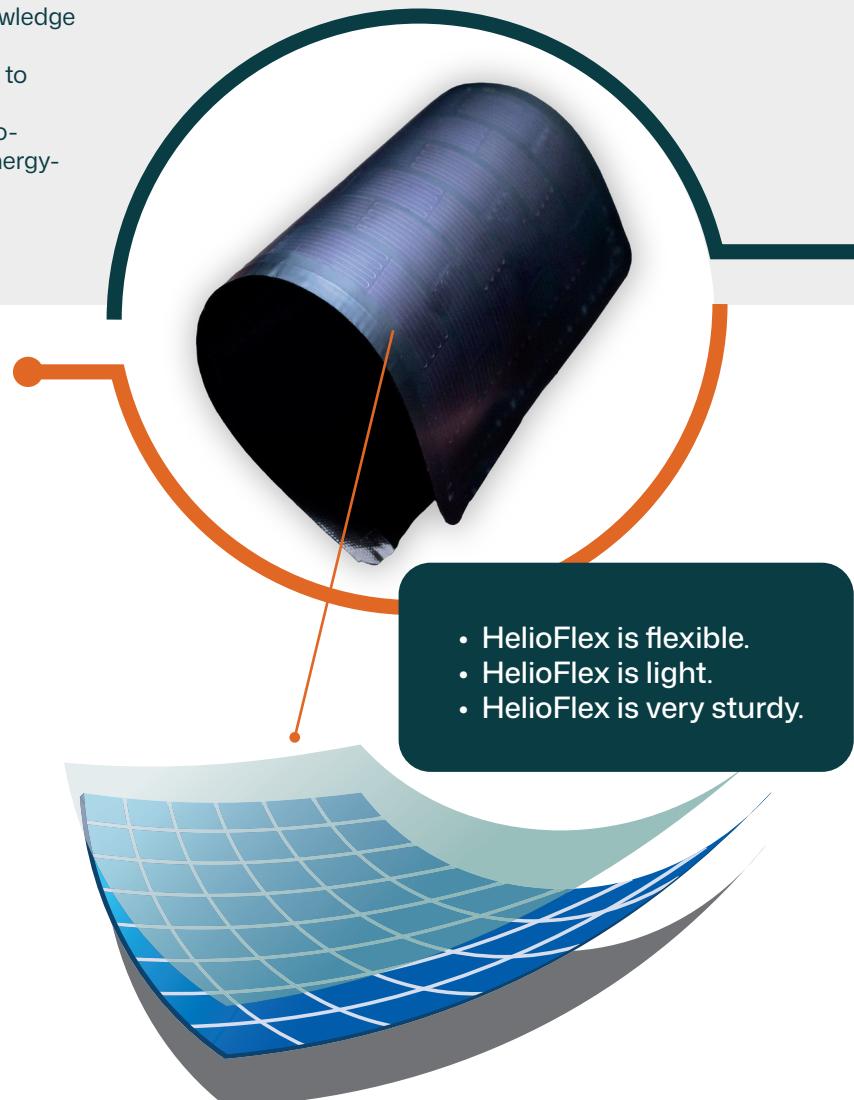
HelioFlex is a flexible photovoltaic material that can be easily applied on almost any material and delivers free electricity to the building, making it more autonomous from the public grid. It is made out of European Enfoil Design, Japanese polymer material, American design CIGS PV cells.

Specifications

- Size: from 100mm X 100mm to 4500mm X 800mm
- Thickness: around 2mm
- Weight: Around 2kg/m²
- Power: up to 120Wp/m²
- Flexible radius from 10cm
- Electrical connections: top side or bottom side, position on demand
- Compatible with integration with other production processes through injection molding, lamination, thermoforming
- Can be delivered with various double sided tapes for application on metal, EPDM,...
- Can be matt or glossy
- Colors available from 2025
- ROHS, REACH, CE, no PFAS
- Low environmental impact
- No Glass, very impact resistant

Advantages

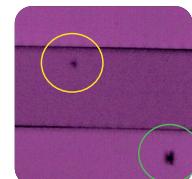
- Can be applied on flat and non-flat surface.
- Can be applied on any support, even light roof of factories or light structure façade.
- Highly resistant on grail impact or earthquake shakes.
- Very easy to install.
- Low installation cost.
- Can be wired to standard materials and equipment to convert the sun energy to electricity ready-to-use inside the building.



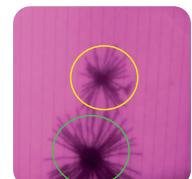
Impact test:

Ball drop test 0.23 kg metal ball

Enfoil



C-Si



Foil marginally affected Largely destroyed

- Ball dropped from 30cm
- Ball dropped from 120 cm

Case study using Enfoil solar foil in the transportation industry

HelioFlex

Example use case

Application in between rims of containers for autonomous smart containers for high valued products. Test made to have a battery of 100Ah keeping charge during the whole year on smart containers for pharmaceutical and other high valued applications. Test results analysed from 02/2023 to 02/2024. This on 5 smart containers travelling through Europe.

Solution

- Size: 1600mm X 140mm
- Power: 24Wp
- Amount of foils per container: 10 to 15
- Glued with double sided tape on the metal container
- Small holes made for the cabling
- Microinverter type Victron BlueSolar MPPT 75/10 every 1 container.

Results

0 defects on the foils

- If 12 foils are used, there was enough charge to operate during the full year
- Held charge well even during winter in westerneurope.



Applications

Roofs of house / Roofs of factory / Cladding façades / Trucks / Fabrics / Stand-alone devices /



“The ultimate flexible PV solution for the most challenging applications”

- Be sustainable
- Generate free electricity
- Choose an easy-to-apply solution
- Select a reliable sturdy solution
- Choose a Belgian-Japanese based solution