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CUSTOMER CASE STUDY

Maaspoort Den Bosch

CUSTOMER SITUATION

Maaspoort Sports and Events, commonly known as the Maaspoort, is an indoor arena in 's-Hertogenbosch, Netherlands. Opened on September 2, 1982, it has a seating capacity for 3,500 people for sporting events and 4,000 for concerts. It is the regular home venue of Den Bosch Basketball.

Den Bosch has committed to the target of being fully carbon neutral in 2050, which means all energy used in town must be generated by sustainable sources like water, wind or sun. Installing solar panels on the stadium roof was the final step to reach the carbon neutral goal for the Maaspoort.

MIASOLÉ SOLUTION

Partner WeKa Daksystemen, along with Hanergy Europe in the Netherlands, supplied 418 FLEX-02W 370W flexible thin film solar panels for the Maaspoort project. These modules were glued directly to the Evalon (Alwitra) roof membrane of the Maaspoort with the ADCO industrial adhesive pre-applied on the back of the panels. The weight of the flexible MiaSolé FLEX-02W is about 3 kg per m2 (6.6lb per 10.7ft2) installed, whereas traditional crystalline solar panels weigh approximately 18 kg per m2 (39.6lb per 10.7ft2), due to the necessary ballast as well as the weight of racking and the panels themselves. Flexible solar panels can be glued directly to the roof and do not require ballast. In terms of efficiency of the panels, thin film and crystalline panels are comparable. MiaSolé FLEX modules are available in various lengths and widths.

The Evalon roof is ecological, with a very long lifespan of at least 40 years and is therefore highly suitable for the installation of PV with its 25 years production guarantee. The white version chosen for the Maaspoort offers a high heat ray reflection of 92% - ideal for cool roofs. The roof qualifies for a Breeam building certification for materials and energy and is also eligible for the Energy Investment Deduction subsidy from the RVO.

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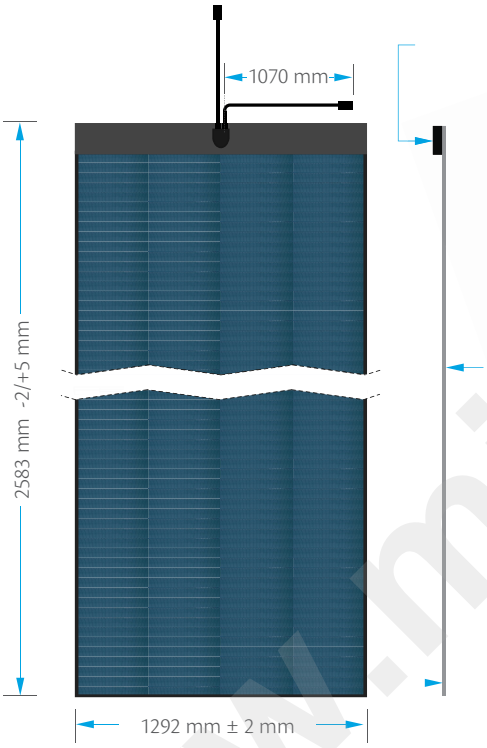
CUSTOMER CASE STUDY – PORT OF MELBOURNE

RESULTS

This 154KW project is expected to generate a yield of around 125MWh of renewable energy per year. Installing partner Dick Groenenberg of WeKa sees the project as a nice step towards completing larger projects in the future with flexible thin film in combination with Evalon; "We know that there is enormous roof potential available in the Netherlands where this lightweight combination solution is the only option for large-scale sustainability. Our expertise in both thin film PV and roof makes us a logical partner to work with ".[1]

As the supplier, Hanergy Europe is also very satisfied; "WEKA has a huge expertise in the field of roof membranes and coating. That makes working together in this kind of project very efficient and successful ".

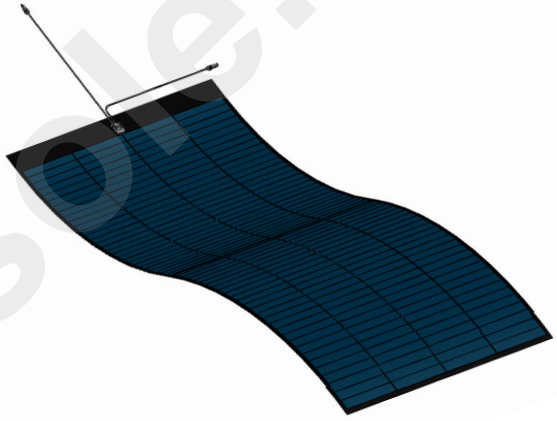
THIN LIGHTWEIGHT PANEL



Thickness with adhesive 2.5 mm (0.1 in)

Thickness without adhesive 1.6 mm (0.06 in)

The thin, flexible and lightweight MiaSolé module conforms to curved surfaces and provides excellent resistence to high wind and seismic events.



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[1] Quote from https://www.hanergy.eu/largest-miasole-flexible-cigs-thin-film-solar-project-in-europe/

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