

Solar Panels of the Future; Technology and Aesthetics Combined

Marjan van Aubel Studio designs the colourful solar-paneled roof of the Netherlands pavilion during the Expo 2020 Dubai. The skylights are made out of lightweight ASCA[®] organic transparent solar cells (OPV), that are 100% recoverable and of non-toxic materials. By combining technology, aesthetics and sustainable materials, the studio has created the solar panels of the future.

Multi-functional design

Van Aubel's skylights will immerse the visitor in rays of light. Its vibrant patterns were specially designed for the pavilion. Light and colour reflect, refract and dance inside the pavilion. The Netherlands pavilion, also known as The Dutch Biotope designed by V8 Architects, is a temporary circular climate system where energy, water and food solutions are connected. The unique solar panels by Marjan van Aubel collect energy from Dubai's sun rays to power the pavilion. At the same time, they allow sunlight into the pavilion and filter the right spectrum of light which the edible plants on the food cone use for photosynthesis.

A form of art using organic materials

Van Aubel demonstrates that solar panels whilst collecting energy, can be beautiful and a form of art too. The graphic design is made with a coloured Moiré effect; the lines and patterns are interacting with each other creating beautiful light reflections in the pavilion. The coloured ARMOR ASCA[®] OPV, a third-generation solar technology, is printed on PET foils and is produced in a sustainable manner. They are lightweight, which makes them easily transportable. The panels will get a second life after Expo 2020 Dubai and are designed in such a way that it's easily taken apart and can be reassembled.

Instead of just seeing solar as a technology, this work shows solar with an emotional value, using the power of design to make solar energy accessible for everyone everywhere.

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About Marjan van Aubel Studio

Marjan van Aubel is a Dutch award-winning solar designer who seamlessly integrates solar power into our environments such as in buildings and objects. Van Aubel's most notable works are 'Current Table' and 'Power Plant'; she also recently launched her first solar design product, 'Sunne' - a solar light that mimics the sun. Her work is part of permanent collections of museums such as MoMA New York, the V&A London and Boijmans van Beuningen in the Netherlands, to name but a few. She has collaborated with global brands such as Cos, Timberland and Swarovski with the aim of accelerating global energy transition to solar.

About ARMOR

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ARMOR solar power films, a subsidiary of ARMOR Group, designs and develops intelligent, tailor-made, flexible and low-carbon solar energy solutions on an industrial scale for its international partners. Its team of experts of sixty people is spread over France and Germany. www.asca.com



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