Robisol®

Solar panels as roof

Sunpark Greenhouse

The Sunpark Greenhouse Systeem has been developed for both renovation and new construction of greenhouses. The self-supporting roof structure with integrated solar panels is mounted on an existing or new greenhouse gutter.

By using standard, widely available photovoltaic (PV) panels, the installation can be fully tailored to the client's requirements. Integrated ventilation in the roof ensures effective cooling of the solar panels. Wear and malfunctions are minimized as all electrical components are installed in a dry environment. The roof structure is considerably stronger than a traditional greenhouse roof, reducing the risk of damage, lowering maintenance costs, and increasing overall safety.

The Sunpark Greenhouse Systeem contributes significantly to the reliability of the building and the optimal performance of the PV installation.

+31 (0)10 223 5953

/robisol

info@robisol.com

Transition from glass to solar panel

Light-transmitting panels

Standards

The Sunpark Greenhouse System is designed in accordance with European standards and Dutch Bbl regulations. NEN-EN 13031 applies to greenhouses and garden centers, while the Eurocodes (EN 1990–1999) govern other applications such as carports, canopies, and warehouses.

The Eurocodes impose higher requirements for snow and wind loads. Although the system can function as a roof solution, standard greenhouse gutters are a limiting factor. Therefore, the Omega gutter has five times the bending stiffness of a conventional greenhouse gutter.

Within greenhouse applications, the system significantly reinforces the roof structure. For applications outside NEN-EN 13031, the Sunpark Omega System provides a compliant alternative.

Note: For projects outside the Netherlands or with non-standard conditions, the structural design must be verified by a locally certified structural engineer.

Solar panels

Power		± 460 Wp	± 600Wp
Dimensions		1762x1134x30mm	2278x1134x30mm
Roofsize	gutter c.t.c..	3200	4000
Portrait	batten c.t.c.	1139	1139

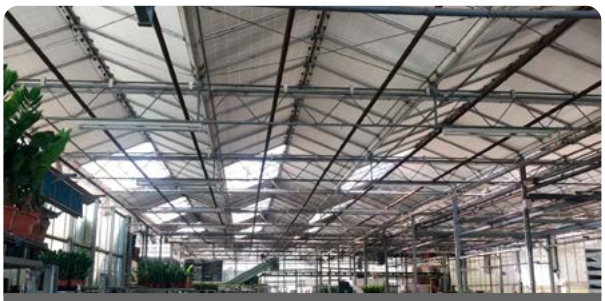
Solar Panels

The Sunpark Greenhouse Systeem is adapted to the standard dimensions of greenhouses and PV panels. Venlo-type greenhouses with steel gutters typically have roof spans of 3.20 m or 4.00 m. Commonly used PV panels have the following dimensions:

Roofsize	Panel Size	Power
3,20m	1762x1134x30mm	± 460Wp
4,00m	2278x1134x30mm	± 460Wp

To integrate the panels effectively, the roof pitch of the Greenhouse Systeem is slightly steeper than a traditional greenhouse roof. Alternative configurations, such as smaller panels or larger roof spans, can be customized to meet project-specific requirements.

Robisol®
Jan van der Heydenstraat 20 2665 JA Bleiswijk Netherlands
T +31 (0) 10 223 595 3 info@robisol.com www.robisol.com



Processing area

Growing area

Caravan storage

Plant room

Applications

The Sunpark Greenhouse System is suitable for both renovation and new greenhouse construction.

In production greenhouses, light transmission can be maintained by using (semi-)transparent solar panels. In addition, a closed cultivation environment can be created based on the principles of Circular Indoor Farming. When properly implemented, this results not only in positive energy production, but also in CO□ consumption and up to 95% reduction in water use for crop production.

If you do not wish to modify your cultivation environment, please note that a roof with solar panels allows less light transmission. For many crops this is not desirable, but in non-cultivation environments it can be an advantage due to reduced heat load. This applies, for example, to processing areas, logistics, storage, and technical rooms. Applications such as caravan storage also benefit from a less transparent roof.

In such applications, the Sunpark Greenhouse System provides structural reinforcement of the roof while minimizing the risk of glass breakage and damage.