



LUMENEX™
SOLAR

Sustainably covered

ABOUT US

BOAL SYSTEMS **GREENHOUSE ROOF SYSTEMS**

BOAL Systems offers an extensive range of aluminum deck and sidewall systems for high-tech glass and foil horticulture, as well as for the growing demand for horticultural solar solutions. We have established long-term cooperative relationships with our customer base of regional and global greenhouse construction companies. BOAL Systems has delivered more than 10,000 hectares of new greenhouses worldwide.

Our modular greenhouse systems can be equipped with fully integrated sustainable solutions such as climate screens, insect netting, insulation and ventilation systems. These are tailored to specific project requirements, size and complexity, as well as local geographic or climatic challenges such as earthquakes, extreme storms, heavy snow, hail or rainfall.

With a strong focus on partnership, engineering and R&D, BOAL Systems is at the forefront of high-tech indoor growing with superior technical capabilities and improved light transmission. It enables growers to achieve optimal yields with minimal resources.



LUMENEX™ SOLAR

THE LUMENEX™ SOLAR SYSTEM SAFE AND RELIABLE CUSTOMIZATION

The lifespan of today's solar panels is over twenty-five years. Naturally, the same demands are placed on the system in which these panels are installed. This means that the aluminum must be able to withstand all climatic conditions and additional loads.

The Lumenex™ Solar System is a reliable and self-supporting greenhouse structure, specially developed for the integration of framed and unframed solar panels in Venlo & wide-span greenhouses.

The greenhouse cover system is customized according to the specifications and requirements of the solar panel supplier.

In addition, maximum allowable panel deflection, load requirements, panel dimensions, heat absorption, and panel materials are carefully considered. These, along with specific customer requirements for light transmission and water collection and drainage, determine the final design of the system.

In short, the Lumenex™ Solar is a durable and structurally strong solution. One that offers the possibility of dual use of the ground surface and is extremely suitable for low-light crops, corridors and commercial areas.

TECHNICAL DATA

With the Lumenex™ Solar greenhouse cover system, we are always looking for the best, strongest and most heat resistant solution with a seamless fit between the panel and frame. To ensure this:

- For example, panels come standard with neoprene rubber on three sides for optimal sealing inside and out;
- Solar panels are properly clamped by using high quality screwed cover strips, both on the roof bar and the gutter;
- Providing the glass gutter support with an additional condensation gutter and drain to keep the sides of the panels dry. But also to prevent the system from being unnecessarily burdened by the weight of (standing) water;

- Depending on the cooling requirements, the opposing deck halves of the deck system are equipped with standard vents, continuous vents or tempered glass vents.

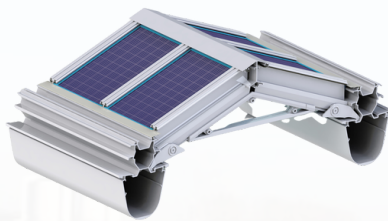
In part, this allows the system to meet local building codes and the panel supplier's stringent requirements for panel support, containment and cooling.

Finally, careful consideration is given to maximum allowable panel deflection, load requirements, panel dimensions, heat absorption and panel materials. These, along with specific customer requirements for light transmission and water collection and drainage, determine the final design of the system.

LUMENEX™ SOLAR SYSTEM BOTH VENLO AND WIDE-SPAN

BENEFITS AT A GLANCE

- Suitable for a wide range of solar panels;
- Waterproof solution thanks to the four-sided neoprene rubber panel overlay and an additional drainage system at the bottom of the panels;
- Well-protected and heat-resistant cover strips on the deck rods and gutters;
- Realization of optimal cooling by means of well-matched vents;
- Easy and efficient installation.



CULTIVATION

When installing the panels on the greenhouse, the desired greenhouse climate must be considered first. This is because the solar panels provide shade, which is not a problem for crops that require less light.

CORRIDORS AND COMMERCIAL AREAS

Commercial areas and corridors are where the solar panel system comes into its own. Because the solar panels keep some of the outside heat (sun) away from the underlying space, it is easy to create a cool storage area and/or a pleasant working environment.