



# LUMENEX™ VENLO

## FOR HIGH-TECH FOIL

Covered for extreme conditions





# 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 developed long-term cooperative relationships with (inter)national greenhouse builders. As a result, BOAL systems has supplied more than 8,000 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.





# BOAL'S GREENHOUSE ROOF SYSTEM FOR HIGH-TECH FOIL

## THE GREENHOUSE ROOF SYSTEM FOR EXTREME CIRCUMSTANCES

For locations where system ageing due to UV radiation, pollution or mechanical stress, such as extreme weather conditions and/or earthquakes, is a concern, our innovative Lumenex™ Venlo greenhouse cover system is the ideal solution. Because this system can also be adapted to incorporate high-tech films, you can be sure that your crop is robustly protected.

High-tech films are often characterised by high UV light transmission. In addition, these films are often self-cleaning and offer unsurpassed resistance to aging and, due to their flexible properties, offering good resistance to unexpected external forces, this material serves as an ideal greenhouse

covering for scenarios where covered cultivation is desired in regions facing geographical and climatic challenges. BOAL's Lumenex™ Venlo greenhouse roof system, which is suitable for integration with high-tech films, then becomes an excellent solution.

The Lumenex™ Venlo greenhouse roof system suitable for the integration of high-tech foil, has been developed in collaboration with AGC Green-Tech with a special focus on sustainability and ease of construction. As a result of this collaboration, high-tech cover films, such as those from AGC, can be easily integrated into our high-tech Lumenex™ Venlo greenhouse roofing system.

## TECHNICAL DATA

Our Lumenex™ greenhouse roof solution is easily integrated with high-tech film, making it ideally suited for areas with extreme geographical and climatic challenges. Thanks to extremely slim aluminium greenhouse profiles combined with well-tightened high-tech film, you are guaranteed high light transmission.

The Venlo high-tech foil system is designed for greenhouse configurations with section sizes of 4.00 and 4.80 metres and sections up to 5.00 metres. The specially designed slim greenhouse profiles provide robust greenhouse deck solutions in which you can efficiently integrate and enclose the stretched high-tech foil to achieve a protected growing environment quickly and safely. Anywhere in the world!

The system is made based on the membrane size of the film, which saves time in fixing and avoids unnecessary material loss.

The Lumenex™ Venlo greenhouse roof system suitable for high-tech foil integration is accurately calculated and tested for local load factors using specific TNO software. By producing according to certified quality processes ISO 9001, ISO 14001, OHSAS 18001 and CE, we guarantee the quality of the BOAL Lumenex™ greenhouse roofing solution.

For easy integration of the high-tech film into the BOAL Lumenex™ greenhouse roof system, we recommend the use of our specially designed roof cart. It ensures fast, safe and efficient installation.

# THE ROOF SYSTEM FOR HIGHTECH FOIL SAFE AND EFFICIENT INSTALLATION

## THE BENEFITS AT A GLANCE

- Extremely sleek and robust greenhouse profiles
- Suitable for integrating and enclosing high-tech films such as the highly transparent F-Clean® cover material of AGC Green-Tech
- Extremely durable greenhouse solution for areas with extreme geographic and climatic challenges, thanks in part to large roof spans
- Safe and efficient installation using the special BOAL roof cart
- Reduced transport volume

## WHY CHOOSE A HIGH-TECH FILM GREENHOUSE?

- Strong, flexible and highly transparent
- Typically high self-healing and self-cleaning properties
- Limited crop damage due to possible high impact on roofs
- High tech films often have a long life expectancy of up to 35 years

\*Tests with AGC's highly transparent F-Clean® show a robust solution with high UV resistance and UVB of up to 94%.



## CULTIVATION

The Venlo high-tech foil system is extremely suitable for conditioned growing of vegetables and soft fruit\*.

\*See also the Wageningen University & Research (WUR) publication "The climate and risk resistant greenhouse the efte one greenhouse"