

## Product description

Modulit® is a polycarbonate system extruded in modular panels used for the realization of translucent walls in vertical sandwich panels, suitable to illuminate the interior of the premises..

The system is made by means of panel coupling, provided by "male/female" joints for a perfect fit; perimeter profiles in anodized aluminium complete the fixing structure..

### Sector

Industrial / Commercial

### Application

Vertical Flat translucent roof – continuous or discontinuous

### Advantage

High thermal insulation

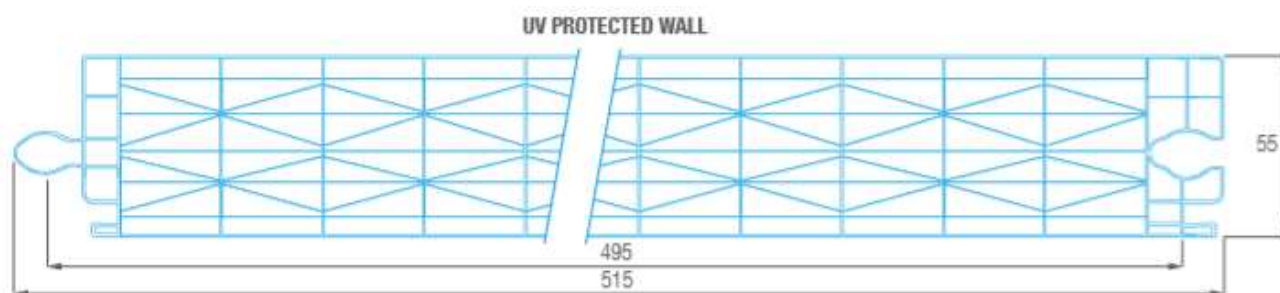
Good light transmission

Easy and quick installation

Excellent impact resistance

## Profile:

### PROFILE: K11 - Modulit 511 LP -55 mm



## Technical characteristics

Properties	Value
Thickness	55 mm
Structure	11 walls (double X)
Module width	495 mm
Length	Upon request (standard 7.000 mm)
Light transmission	Clear: 36 % White Opal: 20 %
Solar energy transmission (G value)	Clear: 55 % White Opal: 38 %
Thermal expansion coefficient	$6,5 \times 10^{-5} \text{ K}^{-1}$ (0,065 mm/m°C)
Thermal transmittance (U)	0,83 W/m² K
Service temperature	-40°C a +120°C
Acoustic insulation	25 dB
Fire certification	B s2 do
UV protection	Cara Exterior

## Certificates

- Reaction to fire certificate according to EN 13501-1. Classification obtained: Bs1d0
- 10 years limited warranty

### Admissible load:

Load charts - 2 SUPPORTS		
Carga (N/m²)	Maximum Camber 1/100 Distance between supports (mm)	Maximum Camber 1/50 Distance between supports (mm)
	Pressure / Suction	Pressure/ Suction
600	1.900	2.400
800	1.750	2.200
1.000	1.600	2.050
1.200	1.500	1.900
1.600	1.400	1.750
2.000	1.300	1.600

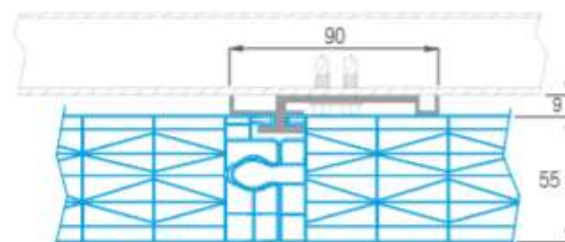
- The load tables refer to the breakage load value of the system, i.e. the lowest value between; the collapse of the panel, failure of the frame of the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety to be applied in consideration of both the climatic conditions of the site, both the general and particular characteristics of the structure in which the polycarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country.
- The indicated load values are estimated according to internal tests.

### Recommended installation:

- The system can be applied to all vertical and inclined walls with an angle, with respect to the vertical, not higher than 45°.
- In addition of the polycarbonate sheet, it is composed of:
  - Perimeter anodized aluminium profiles silver color
  - External gaskets in EPDM
  - Aluminium hook (if required)



section panel / panel joining



section panel / hook / panel joining

## Installation options



Installation within supports  
with bottom sill

$H = L - 40 \text{ mm}$   
(simple profiles)  
 $H = L - 95 \text{ mm}$   
(thermal cut profiles)



Installation within supports  
without bottom sill

$H = L - 35 \text{ mm}$   
(simple profiles)  
 $H = L - 95 \text{ mm}$   
(thermal cut profiles)



External installation  
without sill

$H = L + 108 \text{ mm}$   
(simple profiles)  
 $H = L + 135 \text{ mm}$   
(thermal cut profiles)



Detail  
of the upper  
thermal cut profile



Detail  
of the lower  
thermal cut profile with sill



Detail  
of the side  
thermal cut profile

## Storage and handling



### KEEP SHEETS OUT OF THE RAIN

Sheets must be stored out of the rain to stop condensation forming inside the cells.



### KEEP SHEETS OUT OF THE SUN

In the event goods need to be stored while still in their packaging, do not leave the pallet in direct sunlight as this could generate high temperatures inside the packaging and make it difficult to remove the protective film on the sheets later.



### SHEETS HANDLING

Sheets must be handled with the utmost care to avoid damaging them with impacts or scratches, which would compromise the material's performance.



### SHEET STORAGE

You can stack sheets up to three packs or pallets high. To stop the product coming into direct contact with objects liable to cause damage, you should place spacers or planks between the packs or pallets and any such objects.



### USING LIFT TRUCKS

For safer and easier handling, you should use lift trucks with forks that can be spaced at least 2 m. apart and are at least as long as the pack or pallet is wide. Exercise the utmost caution, handling the load carefully and avoiding sudden movements so as not to cause the material to rock or bump up and down excessively.



### HANDLING BY HAND

If individual sheets are to be handled by hand, you will need at least two people to carry the sheet on its side. When picking the sheet up off the pack or pallet, you must lift it off cleanly so that it does not scrape against the one underneath and turn it to lie on its side next to the pack.

## Installation instructions



### ALLOW FOR THE POLYCARBONATE'S THERMAL EXPANSION

Sheets must be fixed so that they are retained by at least one whole cell length on each side; an allowance for the material's thermal expansion should be added to this measurement.



### REMOVING PROTECTIVE FILM AFTER INSTALLATION

Sheets come with a protective film on both sides. There is a printed film on one side of the sheet to show you that this is the side to face out. Remove the film as soon as the sheets have been installed.



### SHEET SEALING

Where sealing is necessary, only use silicone, sealants, gaskets and paints that are comparable with polycarbonate.



### SHEET TAPING

Seal the ends of the sheets by applying adhesive aluminium tape to seal the cells and stop dirt getting inside the chambers.



### SHEET CUTTING

Sheets can be cut using common cutting instruments, such as vertical, horizontal or circular cutters, or reciprocating saws, provided they are fine toothed.



### SHEET DRILLING

Sheets can be drilled, provided suitable bits are used. Nonetheless, we do not recommend piercing the sheet with through fixings unless they are suitable slotted to allow for thermal expansion.

## Maintenance



### SHEET CLEANING

To care for sheeting, we recommend cleaning at least twice a year with water and non-alkaline detergents. Do not use abrasive equipment or solvents, which could damage the surface of the sheeting.



### DO NOT WALK ON TOP OF SHEETS

Do not walk directly on top of sheets during installation. We recommend placing a suitable supporting element on top to distribute weight evenly.

The information referred to in this Technical Data Sheet is based on the experience and the tests carried out by the company, without this implying any kind of responsibility for its different applications, given that Stabilit Europa does not have any kind of control over its final use.



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## TECHNICAL DATA

**Modulit 511 LP 55 mm**

Translucent sheet

**Code:** TDS-D-55-K11

**Inspection:** 01

**Valid from:** 20/07/18

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