

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

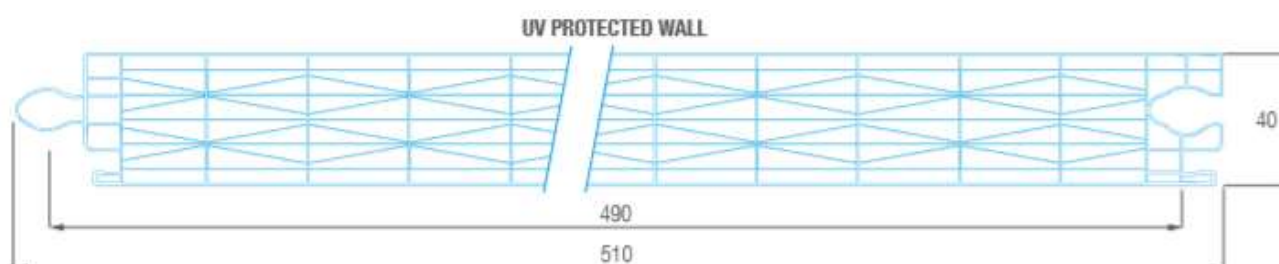
Good light transmission

Easy and quick installation

Excellent impact resistance

Profile:

PROFILE: K09 - Modulit 511 LP -40 mm



Technical characteristics

Properties	Value
Thickness	40 mm
Structure	11 walls (double X)
Module width	490 mm
Length	Upon request (standard 7.000 mm)
Light transmission	Clear: 40 % White Opal: 22 %
Solar energy transmission (G Value)	Clear: 59 % White Opal: 40 %
Thermal expansion coefficient	$6,5 \times 10^{-5} \text{ K}^{-1}$ (0,065 mm/m°C)
Thermal transmittance (U)	0,97 W/m² K
Service temperature	-40°C a +120°C
Acoustic insulation	23 dB
Fire certification	B s1 do
UV protection	External side

Certificates

- Reaction to fire certificate according to EN 13501-1. Classification obtained: Bs1do
- 10 years limited warranty

Admissible load:

Load charts - 2 SUPPORTS		
Load (N/m ²)	Maximum Camber 1/100 Maximum distance between supports (mm)	Maximum Camber 1/50 Maximum distance between supports (mm)
	Pressure / Suction	Pressure / Suction
600	1.600	2.000
800	1.450	1.800
1.000	1.350	1.700
1.200	1.250	1.600
1.600	1.150	1.450
2.000	1.050	1.350

Load charts – 3 o MORE SUPPORTS			
Load (N/m ²)	Maximum Camber 1/100 Maximum distance between supports (mm)		Maximum Camber 1/50 Maximum distance between supports (mm)
	Pressure	Suction	Pressure
600	1.850	1.700	2.650
800	1.700	1.300	2.300
1.000	1.550	1.100	2.050
1.200	1.450	900	1.850
1.600	1.300	700	1.600
2.000	1.200	500	1.400

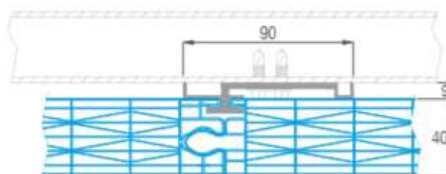
- The load tables refer to the breakage load value of the system, i.e. the lowest value between; the collapse of the panel, failure of the frame of the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety 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)

$L = \text{net space between supports}$

$H = \text{panel height}$



Detail
of the upper
thermal cut profile



Detail
of the lower
thermal cut profile with sill



Detail
of the side
thermal cut profile

TECHNICAL DATA

Modulit®

Modulit 511 LP 40 mm

Translucent sheet

Code: TDS-D-40-K09

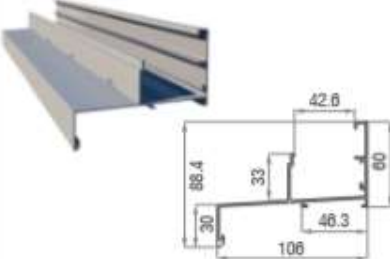
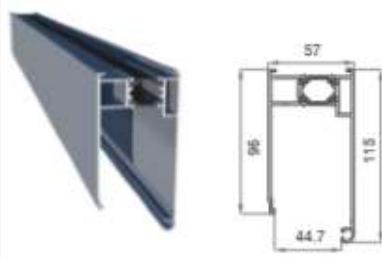
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Valid from: 20/07/18


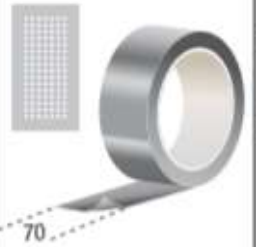



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Modulit® 511 LP - 40 mm accessories

		
Simple profile upper / side anodized aluminium profile	Simple profile lower anodized aluminium profile	Simple profile "high" upper anodized aluminium profile
cod. M987	cod. M989	cod. M984 + M986

		
Simple profile lower anodized aluminium profile with sill	Thermal cut profile upper anodized aluminium profile	Thermal cut profile side anodized aluminium profile
cod. M988	cod. M902	cod. M903 + M904

		
Thermal cut profile lower anodized aluminium profile	Thermal cut profile lower anodized aluminium with sill	Aluminium hook
cod. M901	cod. M901 + M905	cod. M909

				
Aluminium adhesive tape (50 m roll)	Perforated aluminium adhesive tape (50 m roll)	EPDM gasket for simple and thermal cut profiles	EPDM gasket (3 mm thickness)	EPDM gasket for "high" upper profile
cod. M966	cod. M970	cod. M996 - cod. M926	cod. M985	cod. M913

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.



TECHNICAL DATA

Modulit 511 LP 40 mm

Translucent sheet

Code: TDS-D-40-K09

Inspection: 01

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