

## Product description

BDL® is the ideal solution for the creation of skylights or transparent roofs, both flat and curved. The system consists of an extruded polycarbonate panel with multi-wall structure. Suitable to illuminate the interior of the premises.

The union between the panels is obtained in a simple and effective manner through the use of specific polycarbonate or aluminium snap-on profiles. This particular click fixing system does not foreseen holes in the polycarbonate panel, thus allowing the creation of roofs of long lengths.

### Sector

Industrial / Commercial

Sports centers / Infrastructure

### Application

Translucent Roof Curve (self-supporting continuous on roof) in discontinuous

Flat Translucent Roof / Continuous Curve with loading structure

Vertical Flat Translucent Facade - Continuous / Discontinuous

Translucent Cover Sports Structures / Airports / Railway Stations.

### Advantages

Easy and quick installation

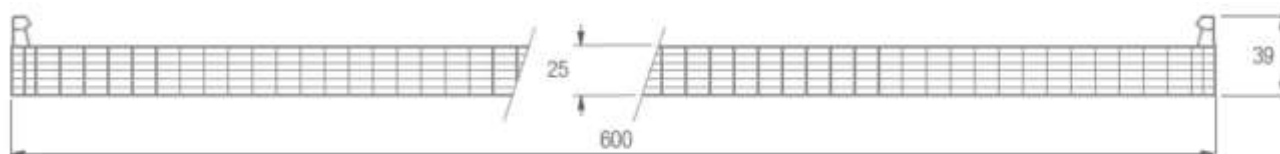
High thermal insulation

Good light transmission

Optimal impact resistance

## Profile:

### PROFILE: Ko6 - BDL 7W – 25 mm



## Technical characteristics

Properties	Value
Thickness	25 mm
Structure	7 walls
Module width	600 mm
Length	Upon request
Light transmission	Clear: 52 % White opal: 35 % Gold Opal: 21 % - IR Gold Opal Green Opal: 46 % - IR Green Opal Athermic: 18 % - Athermic
Solar energy transmission (G value)	Clear: 59 % White opal: 48 % Gold Opal: 30 % - IR Gold Opal Green Opal: 30 % - IR Green Opal Athermic: 30 % - Athermic
Thermal expansion coefficient	$6,5 \times 10^{-5} \text{ K}^{-1}$ (0,065 mm/m°C)
Thermal trasmittance (U)	1,4 W/m² K
Service temperature	-40°C a +120°C
Acoustic insulation	23 dB
Reaction to fire	B s1 do
UV Protection	Both sides



## TECHNICAL DATA

**BDL 7W 25 mm**

**Translucent sheet**

**Code:** TDS-D-25-K06

**Inspection:** 01

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Minimum radius cold bend	5000 mm
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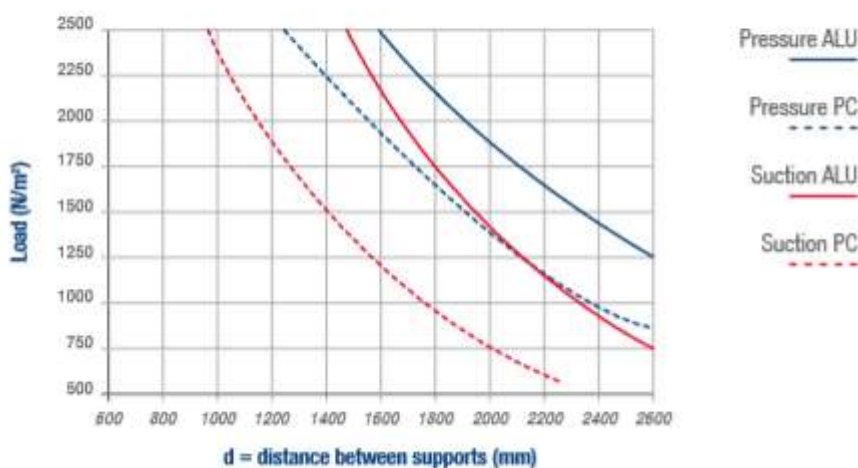
### Certificates

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

### Admissible load:

## BDL 7W 25 mm load charts

### Load charts for FLAT solution

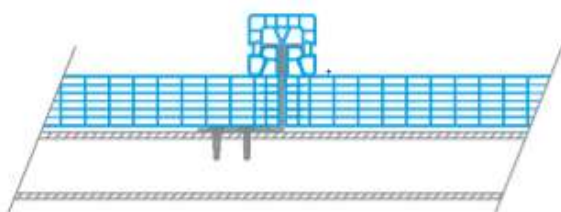


- The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will check the actual loads acting on the system as well as the coefficients of amplification and safety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

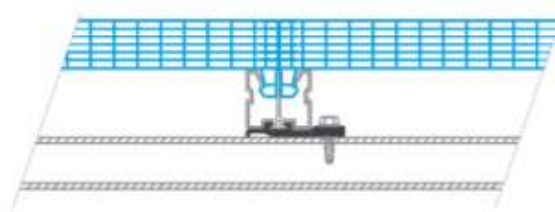
### Recommended installation:

For the realization of the translucent roof with the BDL 7W 25 mm system, the following elements are required:

- Polycarbonate snap-on profile with coextruded UV protection on the exposed sides or alternatively anodized aluminium snap-on profile finish (minimum 15 microns).
- Steel hooks or, alternatively, aluminium hooks
- Closure caps for polycarbonate snap-on profiles (in nylon or Steel)
- Perimeter raw aluminium profiles
- Closure "F" raw aluminium profile

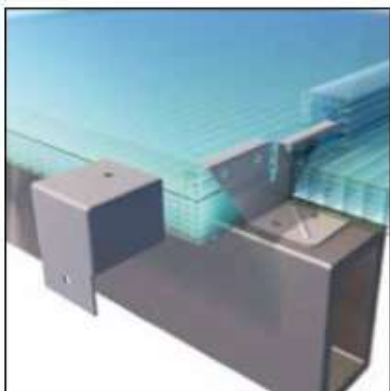


Section panels joining  
with polycarbonate snap-on profile

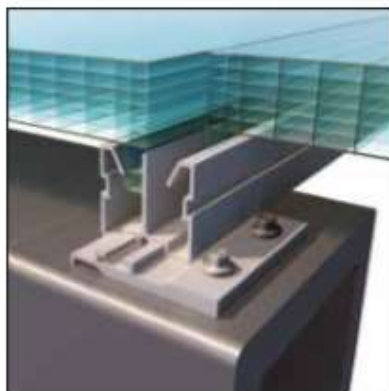


Section panels joining  
with aluminium snap-on profile

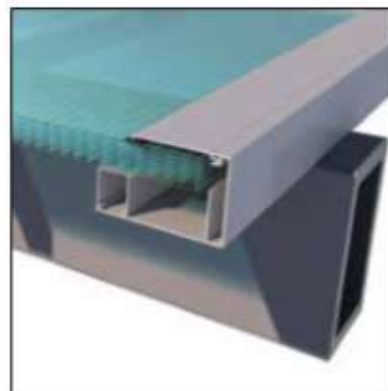
## Roofing solution



Detail of panels fixing with steel fixing hook,  
polycarbonate snap-on profile and nylon end cap.

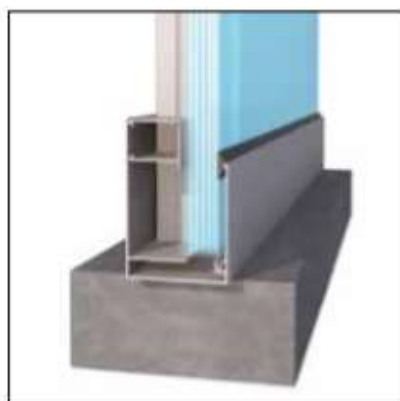


Detail of panels fixing with aluminium  
snap-on profile and aluminium fixing hook.



Detail of side finishing of the roofing.

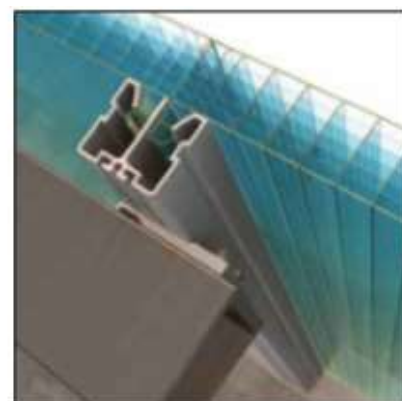
## Wall solution



Detail of the lower profile for wall solution.


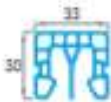


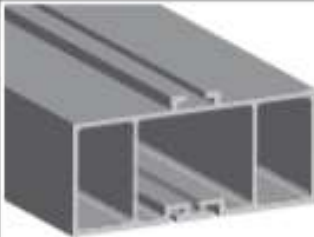
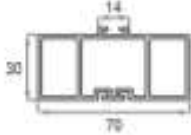

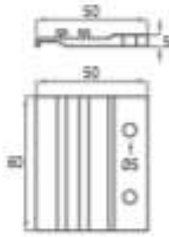

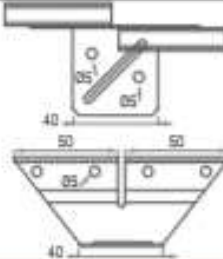

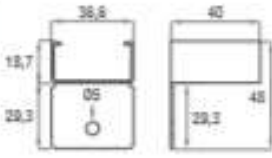



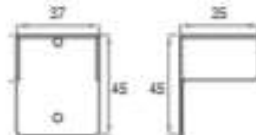


Detail of the upper profile for wall solution.



Detail of the middle fixing hook  
for wall solution.

## BDL 7W 25 mm accessories

  <p>Polycarbonate snap-on profile</p> <p>J443</p>	  <p>Aluminium snap-on profile</p> <p>M9RA</p>
  <p>Anodized aluminium reinforcement profile</p> <p>M9T2</p>	  <p>Aluminium hook for M9RA profile</p> <p>M9VH</p>
  <p>Stainless steel hook for J443 profile</p> <p>M9XQ</p>	  <p>Stainless steel hook for M9RA profile</p> <p>M9S1</p>
  <p>Nylon end cap</p> <p>M9TA</p>	  <p>Steel end cap</p> <p>M9T7</p>

## BDL 7W 25 mm accessories

			
End raw aluminium profile		Panel stop raw aluminium profile	
MSVE		MSVF	
			
Spacer raw aluminium profile		Raw aluminium closure profile	
MSVG		MSRC	
			
EPDM gasket	PE spacer	Aluminium adhesive tape (50 m roll)	Perforated aluminium adhesive tape (50 m roll)
MS26	MSGS	DM, 50 mm	DMA, 50 mm

## 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.



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