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
Residencial / Mobiliario Urbano

Advantages

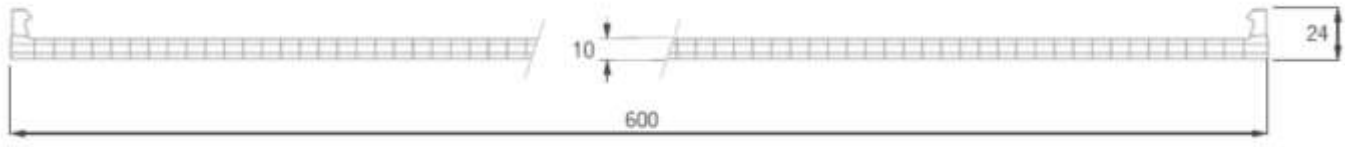
Easy and quick installation
High termal insulation
Good light transmission
Optimal impact resistance

Application

Translucent Roof Curve (self-supporting continuous on roof) in discontinuous
Flat Translucent Roof / Continuous Curve with loading structure
Translucent Cover Sports Structures / Airports / Railway Stations
Roofing / Canopies

Profile:

PROFILE: K05 - BDL 7W - 16 mm



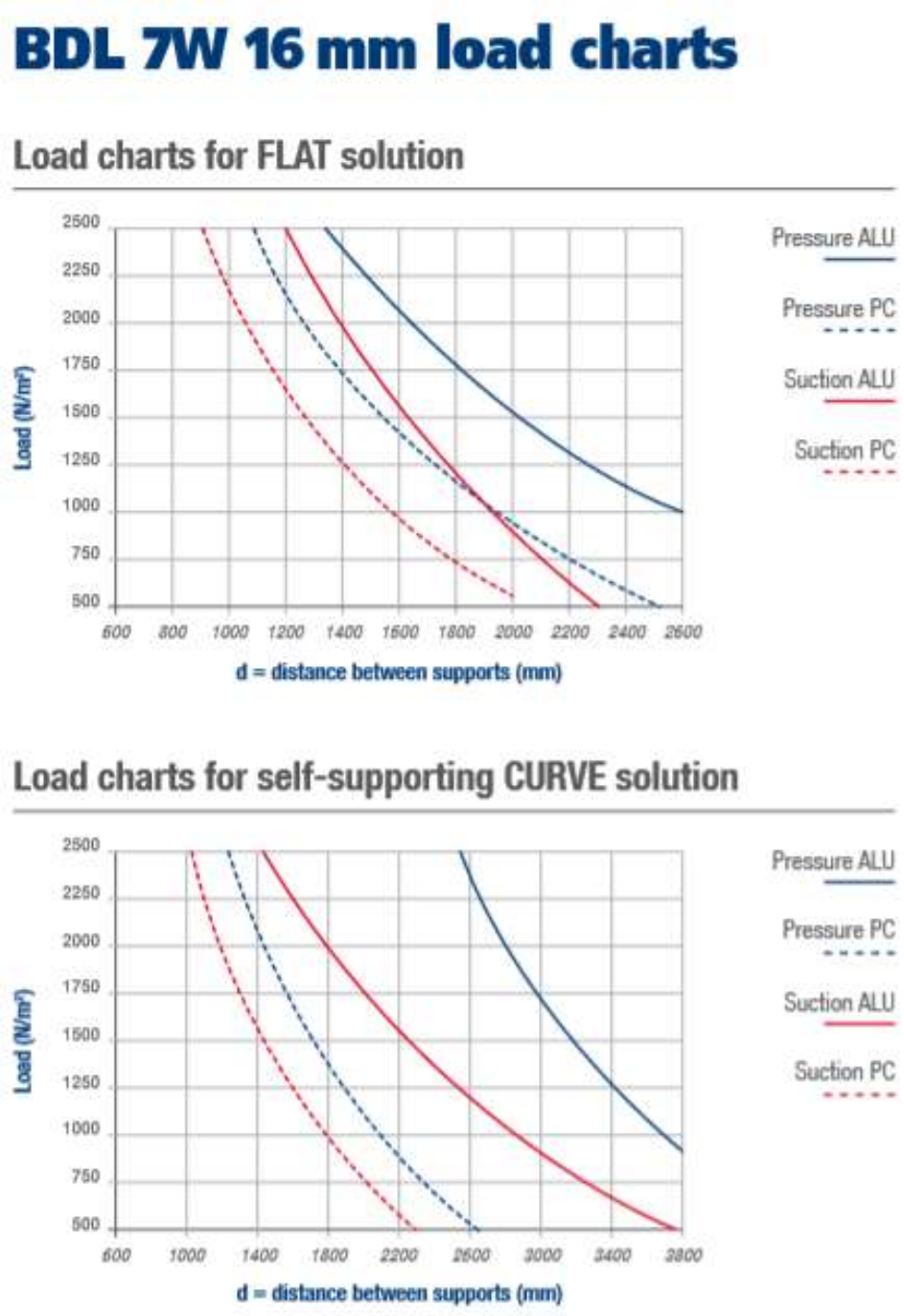
Technical characteristics

Properties	Value
Thickness	16 mm
Structure	7 walls
Module width	600 mm
Length	Upon request (by transport 13.500 mm
Light transmission	Clear: 59 % White Opal: 37 %
Solar Energy transmission (G Value)	Clear: 66 % White Opal: 50 %
Thermal expansion coefficient	6,5 x 10^{-5} K^{-1} (0,065 mm/m°C)
Thermal transmittance (U)	1,9 W/m^2 K
Service temperature	-40°C a +120°C
Acoustic insulation	21 dB
Reaction to fire	B s1 do
UV Protection	Both sides
Minimum radius cold bend	3200 mm

Certificates

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

Admissible Load:

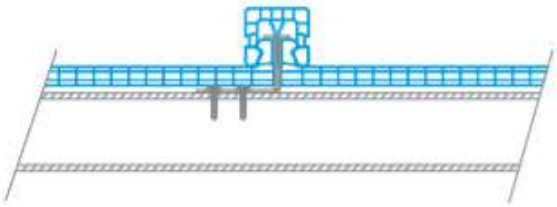


- The load tables refer to the breakage load value of the system, i.e. the lowest value between: the collapse of the panel, failure of the frame or the panel springing out of its housing. The designer will chek the actual loads acting on the system as well as the coefficients of amplification and safety 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 policarbonate is inserted. For these evaluations, refer to the specific regulations in force in each country.

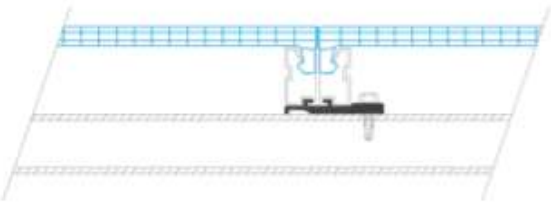
Recommended installation:

For the realization of the translucent roof with the BDL 4W 10 mm system, the following elements are required:

- Policarbonate snap-ion profile with coextruded UV protection on the exposed sides or alternatively anodized aluminium snap-on profile finish (mínimum 15 microns).
- Steel hooks or, alternatively, aluminium hooks
- Closure caps for polycarbonate snap-on profiles (in nylon or Steel)
- Anodized aluminium profile, silver finisch (mínimum 15 microns), for the finishing of the starting and arrival point of the roof.
- Anodized aluminium sill profiles, silver finish (mínimum 15 microns) – only for curved self- supporting roofs.

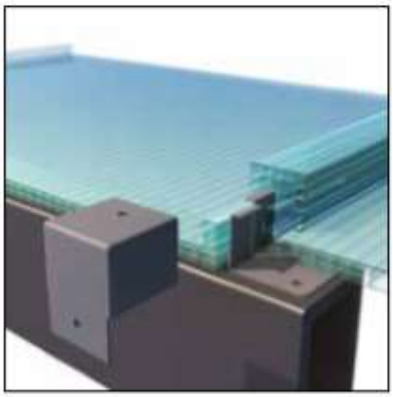


Section panels joining
with polycarbonate snap-on profile

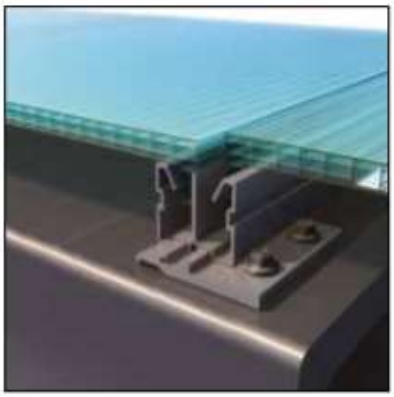


Section panels joining
with aluminium snap-on profile

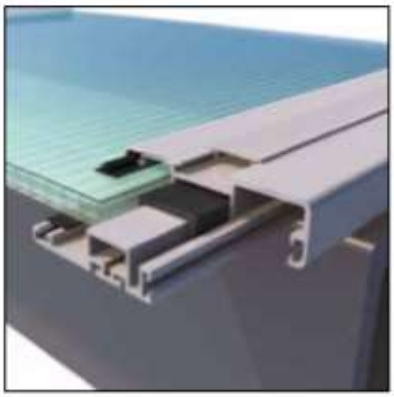
Flat solution



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

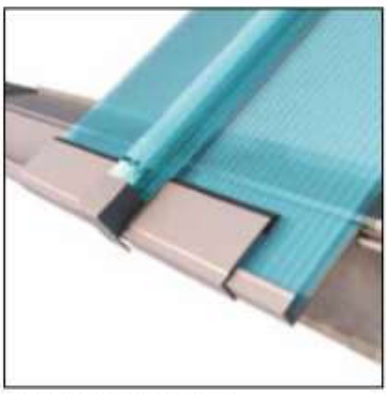


Detail of panels fixing with aluminium snap-on profile and aluminium fixing hook.

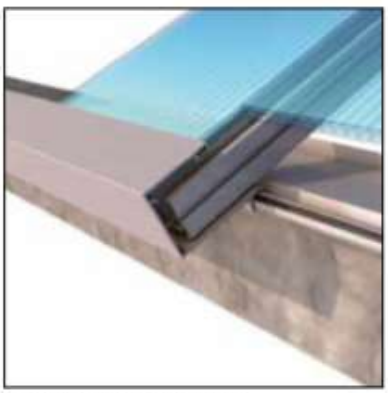


Detail of aluminium profile for the finishing of the starting and arrival point of the roof.

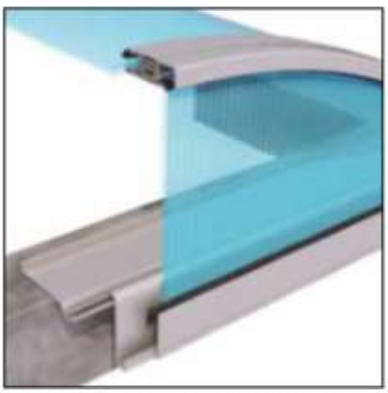
Curve solution



Detail of self-supporting roof with polycarbonate snap-on profiles.



Detail of self-supporting roof with aluminium snap-on profiles.

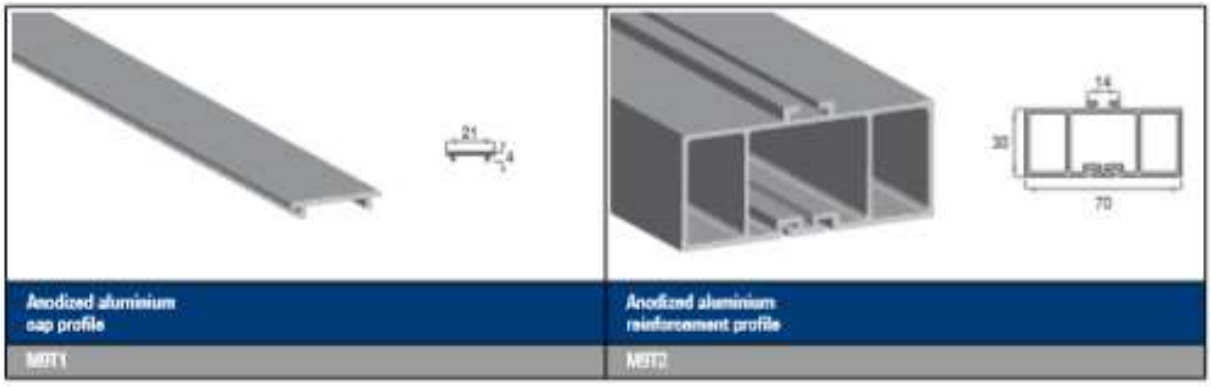


Detail of the gable for self-supporting roof.

BDL 7W 16 mm accessories

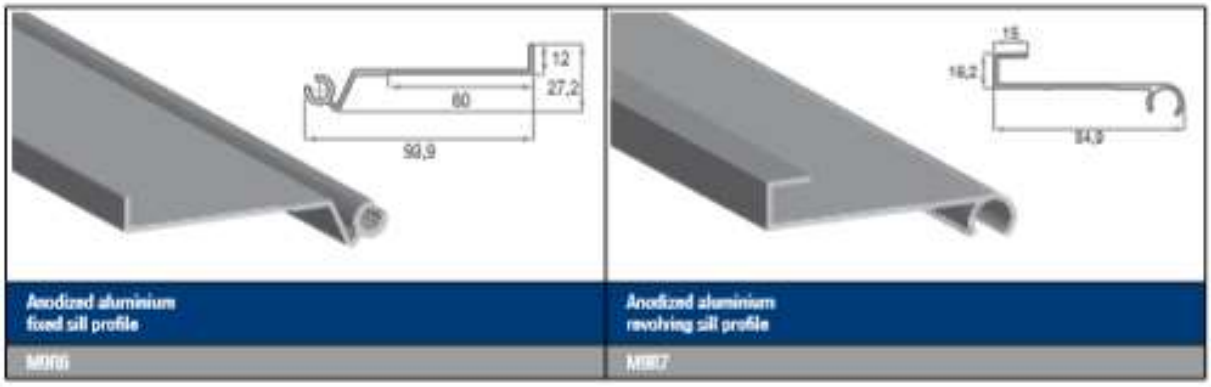
Anodized aluminium upper profile for gable — MB09

Anodized aluminium lower profile for gable — MB10



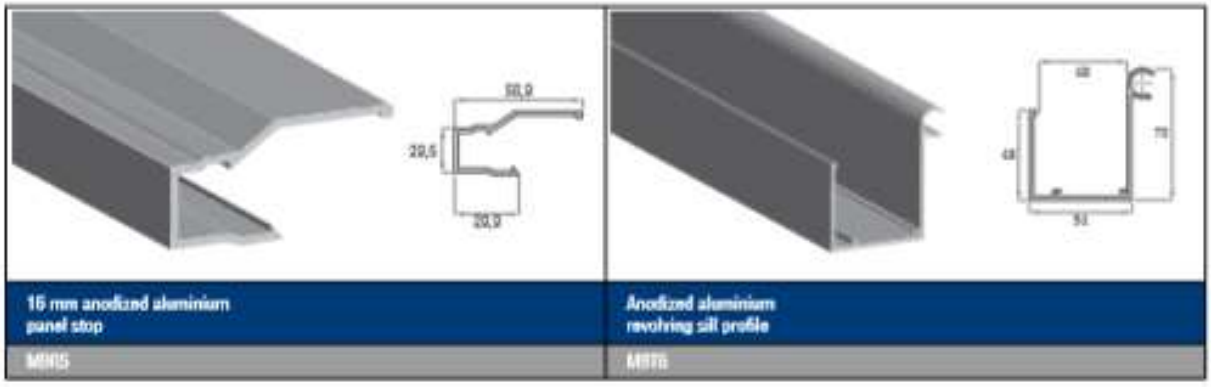
Anodized aluminium cap profile — MB11

Anodized aluminium reinforcement profile — MB12



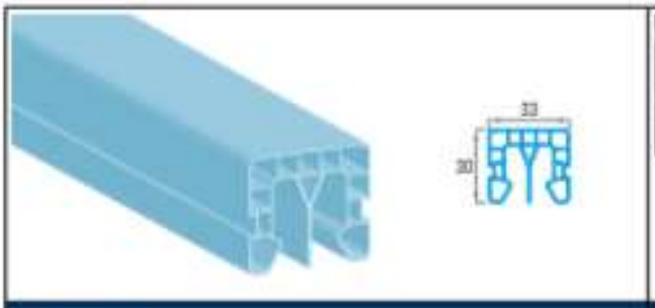
Anodized aluminium fixed sill profile — MB06

Anodized aluminium revolving sill profile — MB07



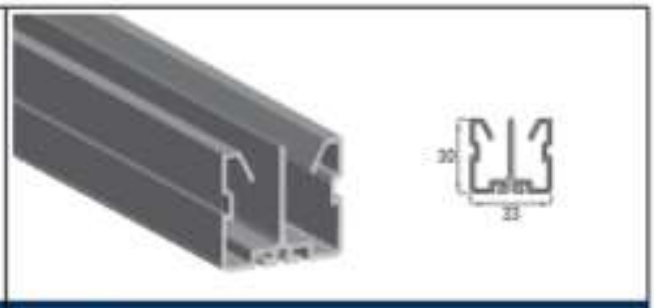
16 mm anodized aluminium panel stop — MB05

Anodized aluminium revolving sill profile — MB16



Polycarbonate snap-on profile

J443

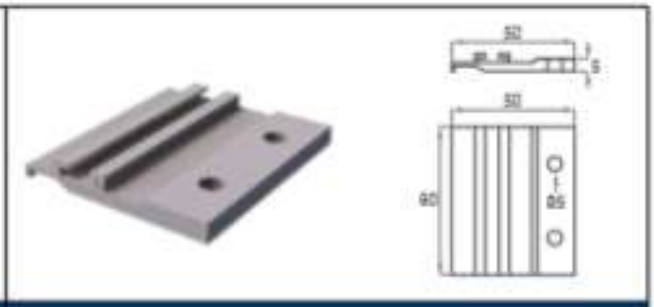


Aluminium snap-on profile

M9RA

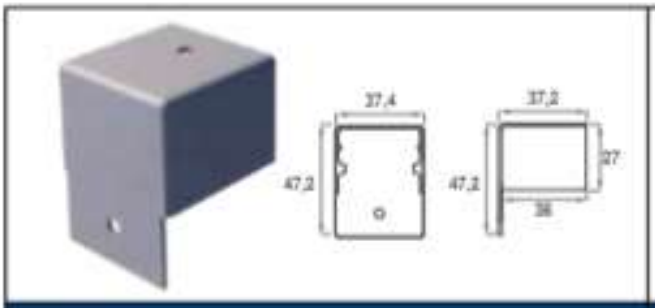
Stainless steel hook for J443 profile

M9J7



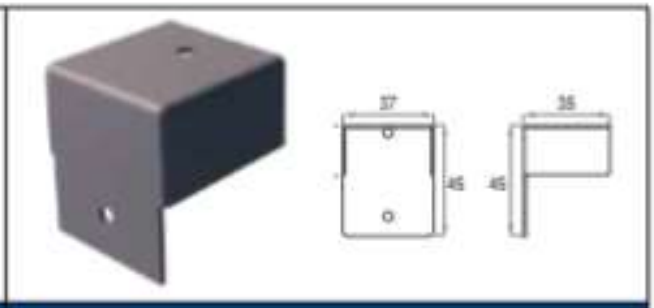
Aluminium hook for M9RA profile

M9VH



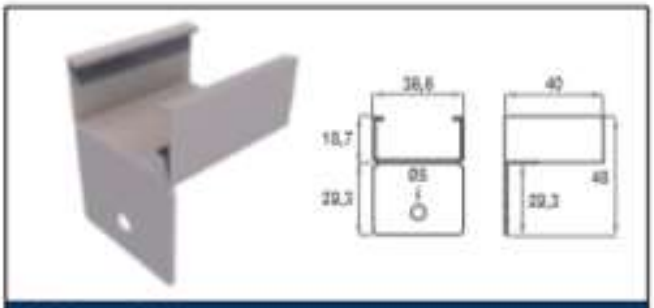
Nylon end cap

M9TA



Steel end cap

M9T7



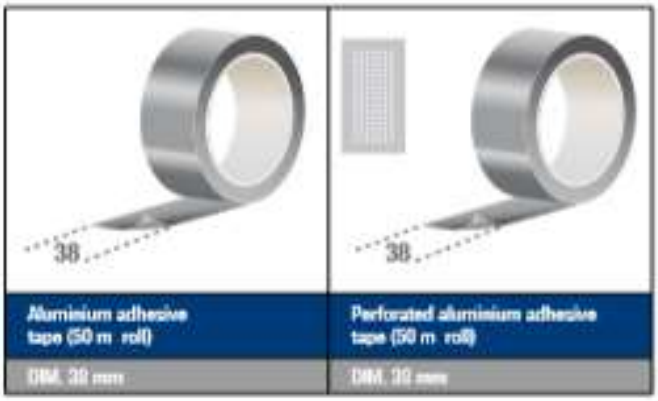
Stainless steel hook for M9RA profile

M9G1

BDL 7W 16 mm accessories

EPDM gasket	1 mm EPDM gasket	3 mm EPDM gasket	EPDM thermal cut gasket
M026	M053	M055	M075

PE spacer	Screw	Rubber washers for screw
M069	M074 - DIM. 4,2 x 19 mm	M029



Aluminium adhesive tape (50 m roll)	Perforated aluminium adhesive tape (50 m roll)
DIM. 38 mm	DIM. 38 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 handed 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 fo the material's thermal expansion should be added to this measurement.

REMOVING PROCTECTIVE 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 comparible with policarbonate.

SHEET TAPING

Seal the ends of the sheets by applying adhesive aluminium tape to seal the cells ans 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 DRILLNG

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 elemento n top to distribute weight evenly

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