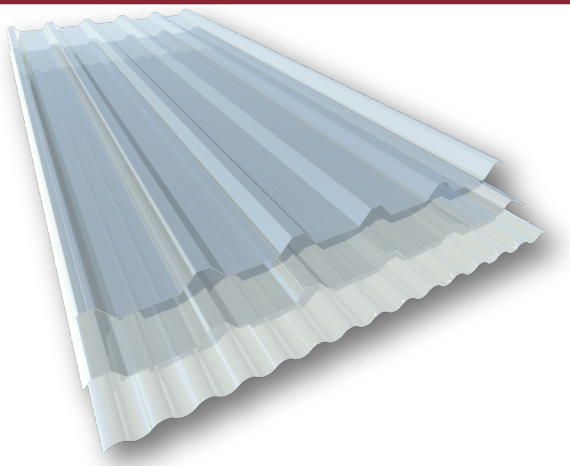
COMPACT POLYCARBONATE

SKYLIGHT



COMPOSITION
Compact Polycarbonate

THICKNESSES mm (in.)
1.0
(0.04)

AVAILABLE FOR
MO-18, MT-32, MT-42 and MT-52

USE
Façades
Roofs

CURVABLE

TECHNICAL SPECIFICATIONS

Our skylights are made to the same dimensions as our Hiansa MO-18, MT-32, MT-42 and MT-52 steel plates, thereby ensuring a perfect fit between the steel cladding sheet and the skylights. These products are manufactured in both flat and cold-moulded curved models (in accordance with the client's instructions and at the client's own liability) and their solar-radiation control properties (which are intrinsic to the sheet) provide excellent light transmittance and a high reflection level in terms of heat radiation.

All of these features makes compact polycarbonate an ideal product for situations of extreme cold or heat.

Our sheets can also be supplied with anti-condensation treatment, which is particularly suitable for building types characterized by the presence of marked interior condensation (in swimming pools, for example).

MAIN CHARACTERISTICS	
Characteristic	Value
Thicknesses	Standard 1 mm (other thicknesses on request)
Useful width of panel	MT-32=1000 mm / mo-18=1064 mm
Standard length (l)	7500-10,000-12,000-13,500 mm
Customized length (l)	customized (from 300m2)
Weight	MT-32=1.41 Kg/m² / mo-18=1.36 Kg/m²
Light transfer	Neutral= 89% - Opal= 40%
Thermal insulation	5.84 w/m2.K
Acoustic insulation	~ 25 - dB
Expansion	0.065 mm/m ºC
UV protection	coextrusion exterior face
Fire classification	B-s1-d0 (UNE-EN: 13501-1:2007)
Temperature for ordinary use	-30 +120 ºC

GEOMETRIC SPECIFICATIONS

MO-18 - useful width 1064 mm (41.89 in.) / total width 1109 mm (43.66 in.)

MT-42 - useful width 1000 mm (39.37 in.) / total width 1052 mm (41.42 in.)

MT-32 - useful width 1000 mm (39.37 in.) / total width 1079 mm (42.48 in.)

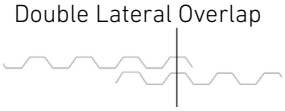
MT-52 - useful width 895 mm (35.24 in.) / total width 958 mm (37.72 in.)

INSTALLATION

The installation is carried out in a similar way to the steel sheet profiled panel.

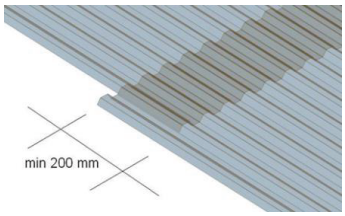
Simple Lateral Overlap

Double Lateral Overlap



The installation must be carried out with a minimum slope of 10% overlapping longitudinally and laterally with equivalent sheet metal profiles.
The lateral overlap can be performed simple (one wave), but in case of slopes less than 10% or in long sloping sides, it is advisable to perform double lateral overlap (two waves).

In longitudinal overlap, at least 200 mm is recommended, increasing this amount for slopes less than 10%.
The lateral overlap of the sheets must always be made in the opposite direction to the dominant winds of the area. We recommend the sealing of lateral and longitudinal overlaps for slopes less than 25%.



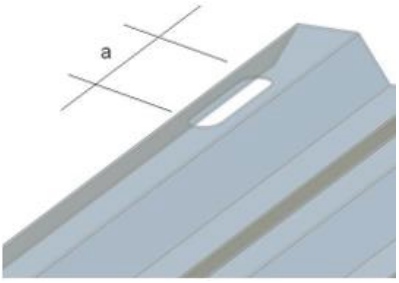
The panel can be mounted onto the façade horizontally and transversely. The sheets must not be placed directly on the ground and must have a protective piece that allows the evacuation of water to the outside.
The separation between purlins must be determined for each profile based on the loads to be supported. Said separation must never be greater than 1.20 meters; otherwise, intermediate supports must be placed between purlins.

EXPANSION

The thermal expansion coefficient of polycarbonate is significantly higher than that of structures and other roofing materials, so it is essential to provide systems that allow the free expansion of the panels.
For this reason, it is necessary to drill slotted holes in the points where the fastening on the purlin is to be carried out.
They will have a diameter 3 mm greater than the diameter of the bolt to be used and a length of the slotted hole according to Table A, placing a support under the rib and the wing to avoid vibrations and possible cracks during drilling.

Table A

Panel length	Oval length
mm	mm
≤ 2000	10
> 2000 ; ≤ 4000	14
> 4000 ; ≤ 6000	18
> 6000	18 + 2.6 mm/m

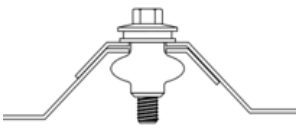


The fastening bolt will be located, with respect to the slotted hole, at the end towards which it will expand the panel so as to allow the movement thereof. The tightening torque will be limited to allow the movement of the panel beneath the bolt.

FASTENING

The fastening must always be carried out on the rib and we recommend using a cap nut as a way of distributing pressure and improving watertightness. The bolts used for fastening must be selected according to the material of the support and the requirements in terms of resistance and durability. The tightening torque of the screwdriver machine must be sufficient to ensure a good fastening and expansion of the panel, avoiding excessive torques that can generate fixed points and deform or crack the polycarbonate.

In the lateral overlap between purlins it is recommended to make a stitched fastening of the two overlapping sheets.
To prevent the pressure from tightening the bolt from damaging the rib or crushing it, we recommend placing a **bracket** suitable to the geometrics of the profile.



SEALING

When it is necessary to seal the joints, the compatibility of the polycarbonate with the sealant must be ensured (it is recommended that a special silicone for polycarbonate be used).
Prior to placement of the sheet, a bead of silicone should be applied to the upper part of the rib of the front panel over the area to be bolted, so as to ensure watertightness.
Regardless of the type of bolt used in the installation, it will have a rubber grommet (we recommend that it be E.P.D.M. [ethylene propylene diene monomer]).
It is advisable to place the gasket under the rib in the channel and over the rib in the ridge to guarantee the watertightness of the installation.

HANDLING AND MAINTENANCE

During handling of the roof for assembly, care must be taken not to drag the sheet on the metal roof, as it could cause scratches on the back of the roof panel. The sheet can be easily cut with mechanical circular saws (with small tooth blades), or saws for cutting metal (in these cases, the sheet must be held in place to avoid vibrations).
It cannot be stepped on and must not be used to walk on it or lean on during maintenance, installation or cleaning operations. For proper maintenance, it is advisable to clean the panel regularly, applying warm water on the surface to remove dust and dirt residues. The surface is then lathered with mild soap and hot water (it is recommended to use neutral soap that does not contain abrasives or solvents). A sponge or cloth should be used and light pressure should be exerted, since damage can be caused to the surface of the sheet if other elements are used and heavy pressure is applied. Finally, it should be rinsed and dried with a soft cloth avoiding leaving water stains on the surface of the sheet. In case of having oil stains on the surface, they can be removed with alcohol or gasoline followed by abundant rinses with warm water and soap.
The panel must be stored and protected indoors, safe from weather conditions, such as sun and rain. Sheets of the same length should be stacked horizontally. If they have different lengths, the longest ones must be placed at the bottom. The panel stacked sheet on top of sheet must be supported on polystyrene blocks or wooden posts.

HIANSA S.A. does not provide accessories (bolts, cap nuts, brackets, etc.) for installation.