

**HIGHLY TRANSLUCENT
PROFILED POLYCARBONATE
INSULATING SHEET**

AKRALUX GRECA

MODULAR PROFILED SHEETS IN UV PROTECTED POLYCARBONATE

AKRALUX Greca is a modular system for all roofing applications where simple installation and durability are requested.

PROPERTIES and APPLICATIONS

AKRALUX GRECA is particularly suitable for lighting in roofs in industrial buildings and storehouses, in combination with profiled metal sheets and sandwich panels.

AKRALUX GRECA sheets in polycarbonate are protected against UV rays with coextrusion process and offer the following particular characteristics:

EASY POSITIONING: By overlapping the sheets no joint profiles are needed and therefore the installation is easy and fast. The geometry of the lateral overlapping part allows the combination with every kind of profiled metal sheet and sandwich panel, as well as the jointing of the AKRALUX GRECA sheets together. **Recommended minimum slope for roofs: 4° (7%).**

LIGHTNESS: Due to the low weight, the sheets are easy to transport and quick to install.

HIGH TRANSPARENCY: Excellent light diffusion and high transparency. Due to the special surface protection on the external side, these properties remain practically unchanged during time.

THERMAL INSULATION: The multi-wall cellular structure, together with the low thermal transmission value of polycarbonate, give good thermal insulation. This ensures improved energy saving (see table TECHNICAL DATA).

CONDENSATION: With correct ventilation, the structure of AKRALUX GRECA ensures that no internal condensation occurs. The cellular structure extends over the laps of the sheeting thereby alleviating condensation at these points.

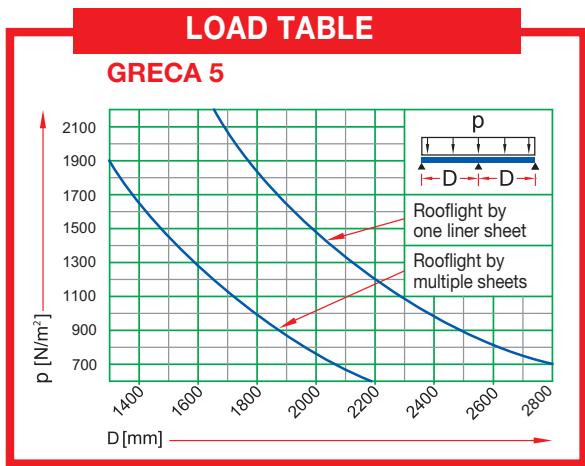
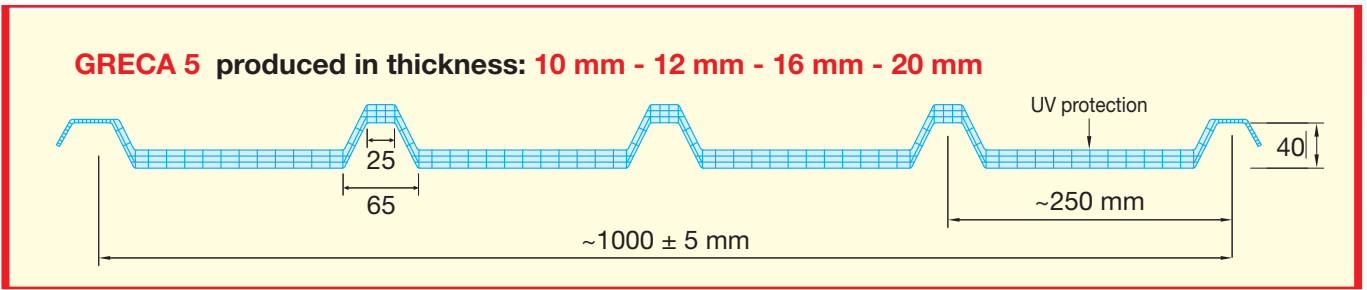
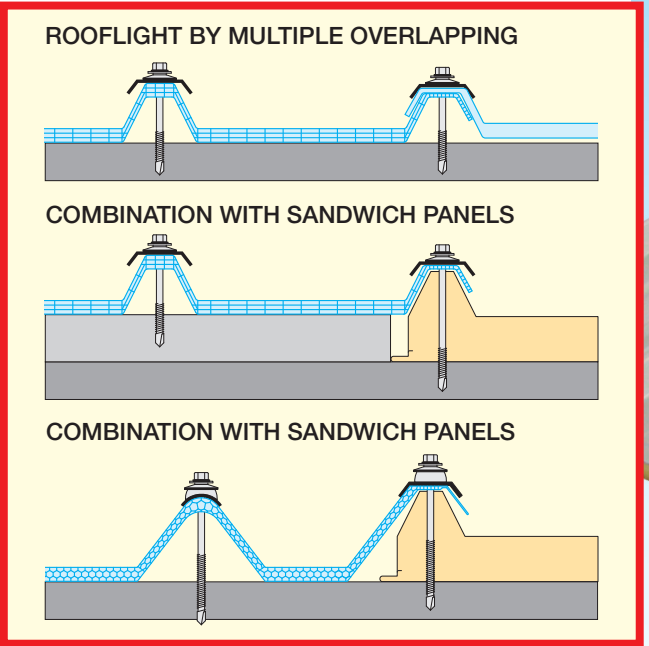
SELF-CARRYING: Due to the high rigidity of the AKRALUX GRECA sheets, high free spans may be obtained (see LOAD TABLE).

PRACTICALLY UNBREAKABLE: Polycarbonate offers a considerable impact strength and resistance against mechanical damages. Furthermore, all AKRALUX GRECA sheets are produced with reinforced outer face for better protection against hail and vandalism.

FIRE PERFORMANCE: AKRALUX GRECA sheets are hardly flammable according to European Fire Class EN 13501-1 B s1 d0.

HIGH WEATHER RESISTANCE: AKRALUX GRECA sheets offer high weathering resistance and durability in the whole temperature range of use.

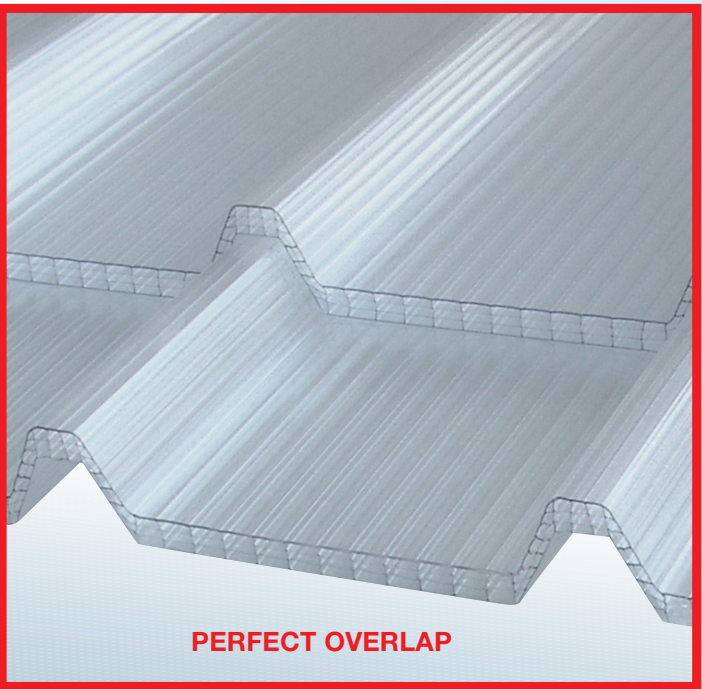
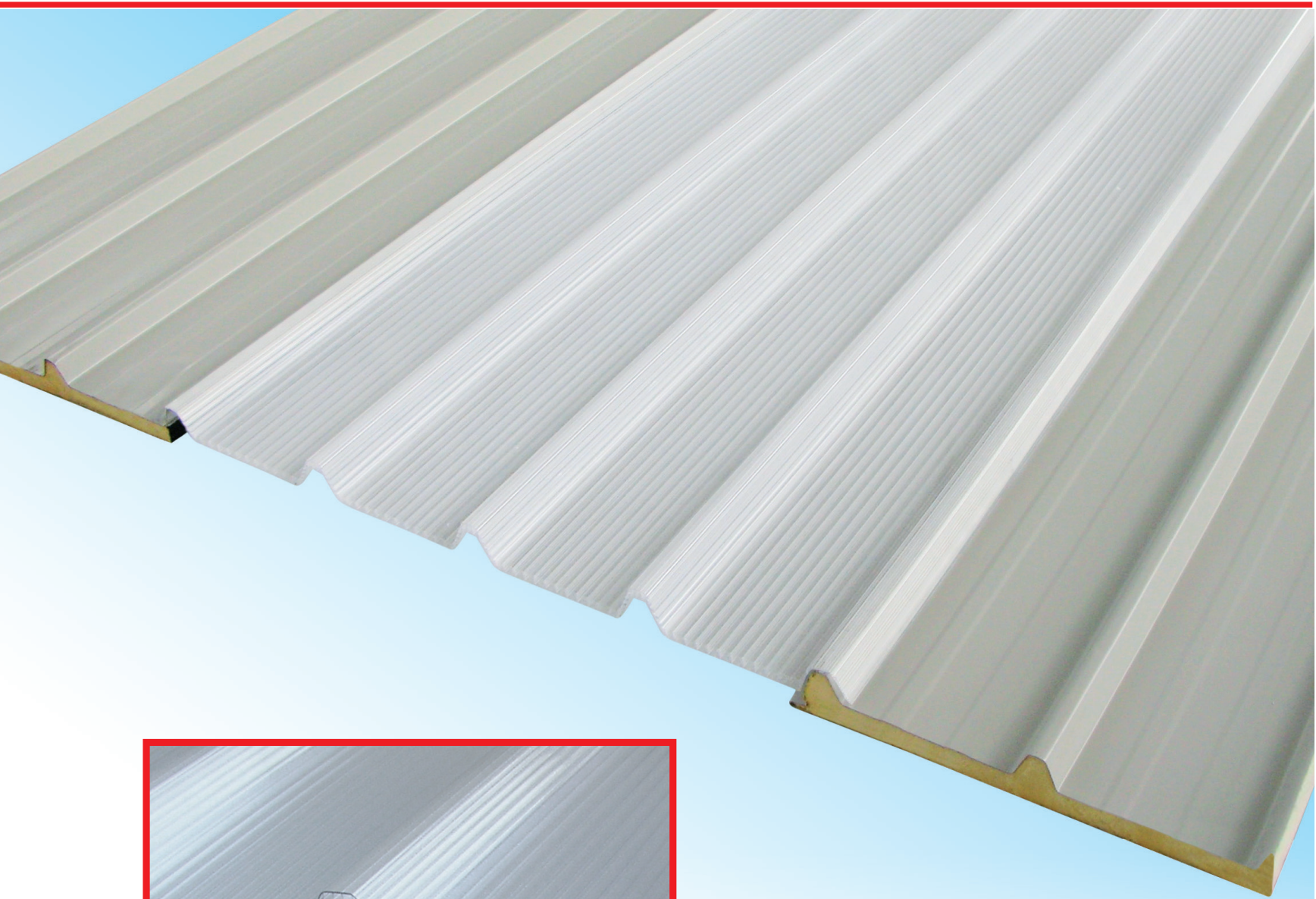
RESISTANCE TO CHEMICAL AGENTS: Please contact us to know the compatibility with chemical products.



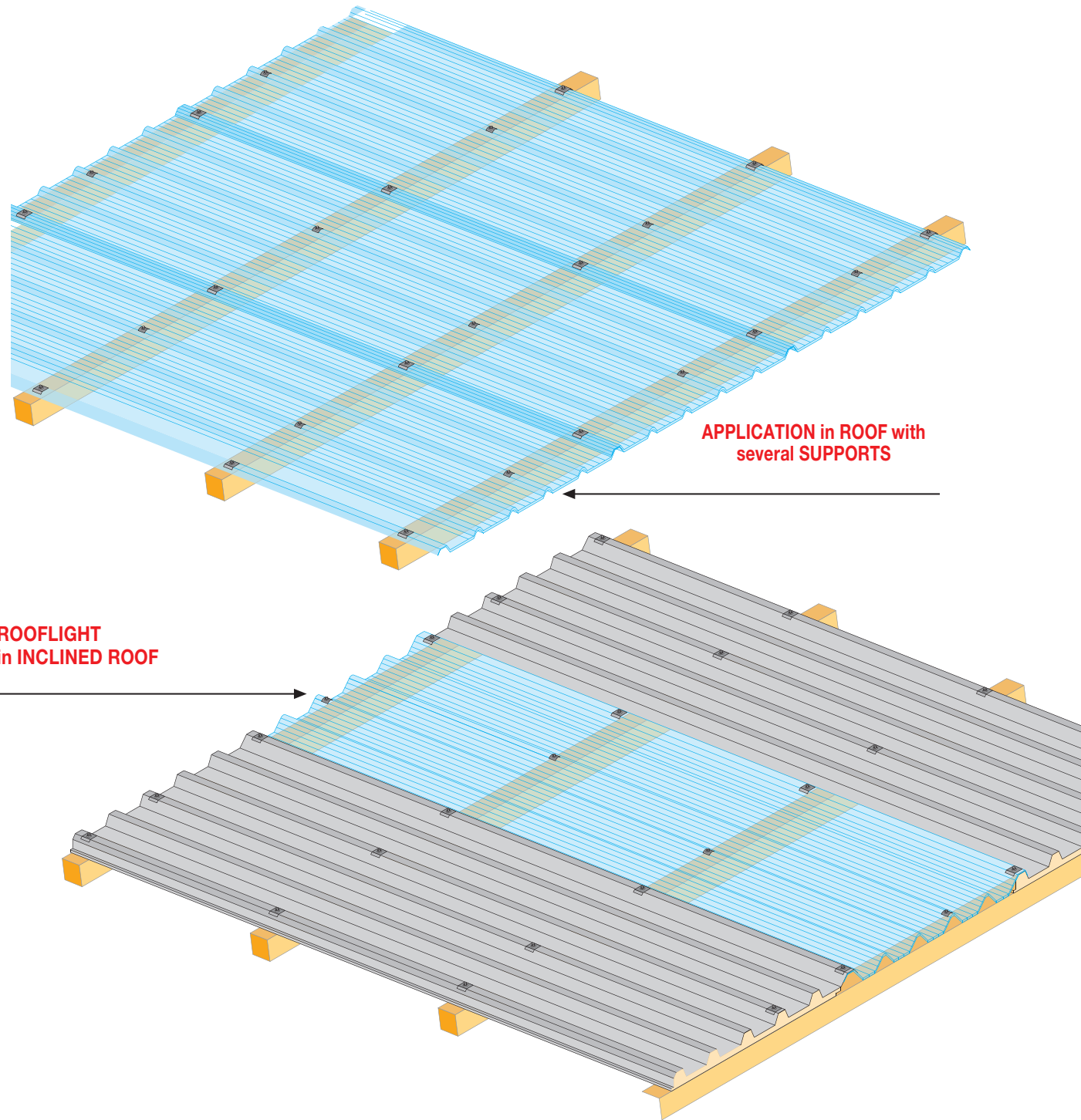
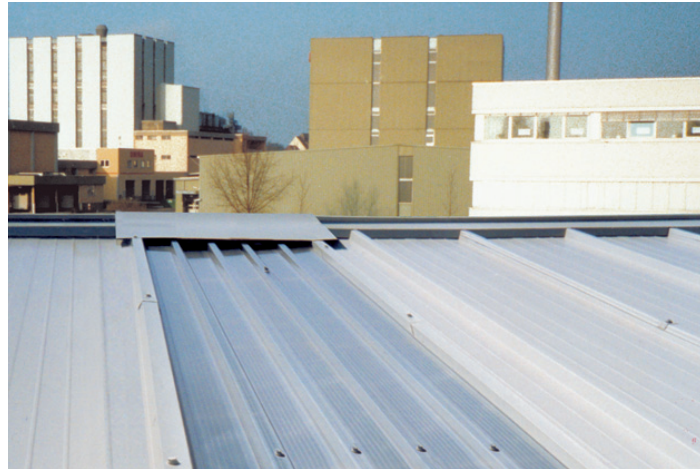
TECHNICAL DATA	GRECA 5				Unit
Panel thickness	10	12	16	20	mm
Total net-height	50	52	56	60	mm
Number of walls	4				no.
Number of hooks	5				no.
Hook distance	~ 250				mm
Modular width	1000 ± 5				mm
Standard length	~ 6000				mm
Length on request	max. 13500				mm
Thermal transmission [U]	2,65	2,35	2,05	1,71	W/m²K
Transparency: Transparent (*)	~ 68	~ 67	~ 66	~ 65	%
Opaline	~ 50	~ 49	~ 48	~ 47	%
Thermal expansion	0,065				mm/m K
Temperature range	-40 / +120				°C
Fire classification EN 13501-1	B s1 d0 no burning drops				
(*) Standard colour - other colours on request for quantities					

GRECA 5

AKRALUX GRECA 5 is a panel with a profile specially designed to overlap perfectly most types of trapezoidal sheets and sandwich elements with 5 profile hooks. This property allows the creation of rooflights which do not have to be necessarily installed longitudinally to the roof, but may also be installed widthwise, without need to be extended over the whole roof. To check the compatibility with the single types of sheets and sandwich elements with 5 profile hooks, please consult Akraplast Sistemi. **AKRALUX GRECA 5** is produced in thickness 10 - 12 16 - 20 mm, both with 4 walls / 3 hollow chambers, in order to obtain the highest value of thermal transmission [U] in relation to thickness. (see table TECHNICAL DATA).



PERFECT OVERLAP



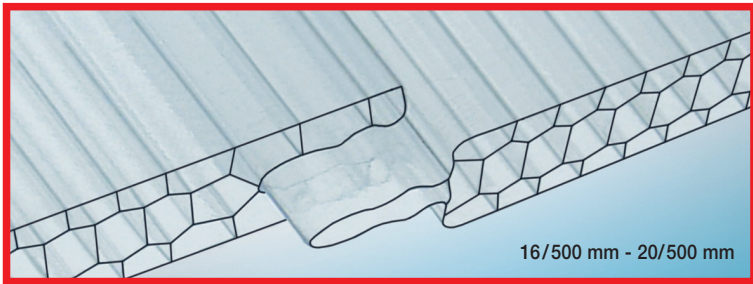
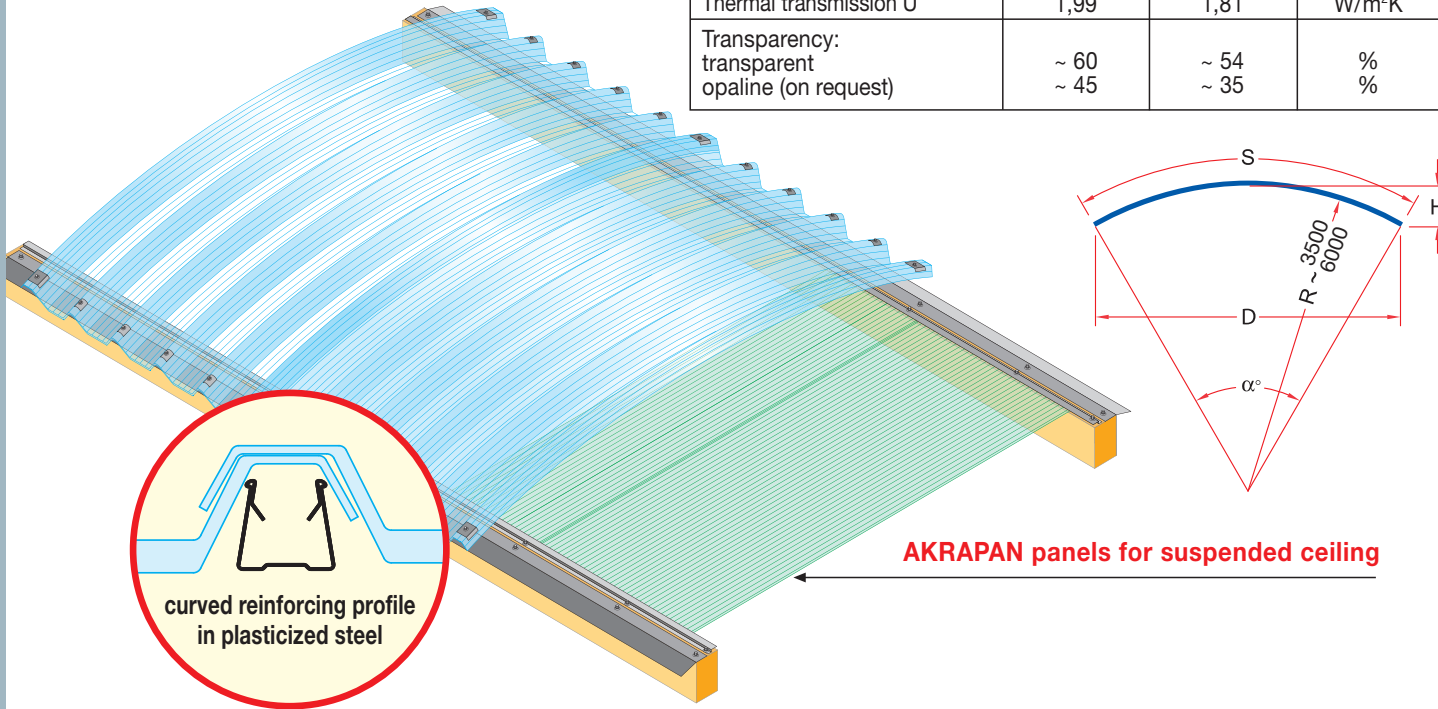
GRECA Curvo

AKRALUX GRECA Curvo offers very practical solutions for curved rooflights in vaulted roofs with profiled metal sheets.

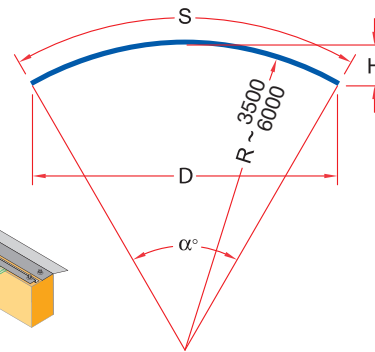
AKRALUX GRECA Curvo sheets are produced with bending radius **3500 mm** and **6000 mm**. These sheets offer all the advantages and technical properties of the **AKRALUX GRECA** sheets. In addition, high rigidity is achieved.

The thermal insulation of rooflights produced with **AKRALUX GRECA** can be increased installing a suspended ceiling with **AKRAPAN** panels. The special tongue and groove joints allow easy installation of these panels without the need for connecting profiles.

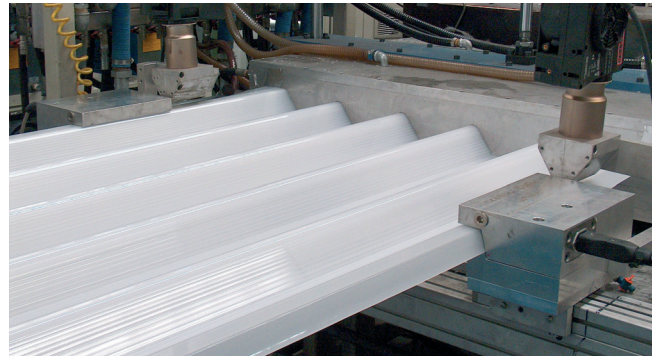
With the addition of the **AKRAPAN** panels the total U-value of the thermal insulation of the rooflight is greatly improved (see table **TECHNICAL DATA**).



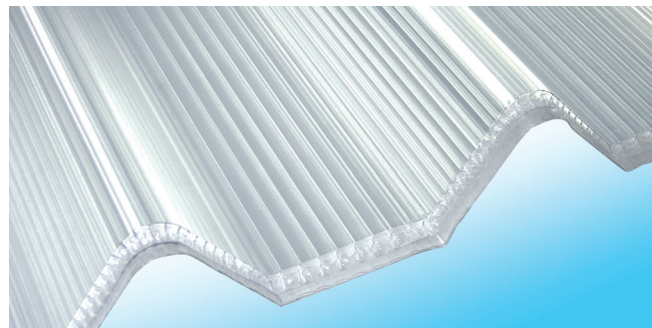
TECHNICAL DATA AKRAPAN panels for suspended ceilings	16/500 honey comb	20/500 honey comb	Unit
Panel thickness ca.	16	20	mm
Modular width	500 ± 5	500 ± 5	mm
Number of walls	[4]	[4]	no.
Thermal transmission U	1,99	1,81	W/m²K
Transparency: transparent opaline (on request)	~ 60 ~ 45	~ 54 ~ 35	%



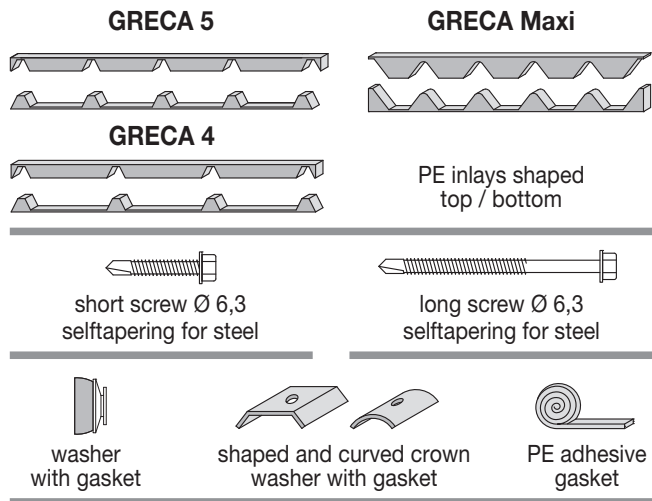
EXTRUSION OF AKRALUX GRECA SHEET



SEALING OF END EDGES



ACCESSORIES



SPECIFICATION TEXT

Inclined roof / curved rooflight with R = 3500 mm (R = 6000 mm) / roof (1) in UV protected polycarbonate cellular profiled sheets, with sealed end edges, modular width 1000 mm, **no. of profile hooks (2)**, panel thickness mm **(3)**, total height mm **(4)**, thermal insulation $U \leq$ W/m^2K **(4)**, colour **(5)**, **shaped PE inlays and what else is necessary for the tightness at the borders (6)**, Type **AKRALUX GRECA** by Akraplast Sistemi.

- 1) Alternatively: kind of application.
- 2) Alternatively: 4; 5; 6.
- 3) Alternatively: 10 mm; 12 mm; 16 mm; 20 mm.
- 4) Value depending on used panel (see table **TECHNICAL DATA**).
- 5) Alternatively: transparent; opaline; others ...
- 6) Accessories not necessary for open roofs.

WARRANTY

AKRALUX GRECA sheets are protected against UV rays on the external side with coextrusion process. In Europe they are covered by a **10 YEAR WARRANTY** from the date of purchase against yellowing and weather damages (hail. etc.). For Extraeuropean Countries the warranty may have a different duration. For further details, please ask for the Warranty Certificate.

CERTIFICATES

With regards to the fire performance, the **AKRALUX GRECA** sheets are classified in Europe in European Fire Class EN 13501-1 B s1 d0. For further details please ask for copy of the respective certificate.

POSITIONING, TOOLS AND FIXING

The sheets should be positioned with the UV protected side being on the external face. Recommended minimum slope for inclined roofs: 4° (7%). When cutting the sheets on site a metal saw with fine teeth should be used. The positioning of the sheets is the same as metal profiled sheets and sandwich panels, likewise the tools for working with the product are the same as would be used for metal sheeting. Screws with a washer gaskets and shaped crown washers with a gasket are used to fix the sheets. When fixing the sheets pre-drill a bore hole, which must be wider than the screw diameter, to allow thermal expansion. If required, a compatible silicone for use with polycarbonate should be used.

MAINTENANCE

It's recommended to clean the sheets regularly, in order to remove dirt due to dust and atmospheric pollution, using cold or lukewarm water and (if necessary) neutral detergents; don't use abrasive cloths, hot water and/or chemical detergents; avoid to clean the sheets if they are overheated by the sun.

RESPONSABILITY CLAUSE

The values and recommendations given are to the best of our knowledge, true and accurate. Since the conditions under which the products may be used are beyond our control, recommendations are made without guarantee. These indications do not exempt the customer to make all controls to determine that the materials correspond to his requirements and to the laws in force. Manufacturer reserves the right to change specifications of products and the content of this leaflet at any time.

