

Alfa Roof Plus

Structural mechanical properties

Alfa Roof Plus panels have excellent, practical structural properties and have been developed to meet the specific roofing needs of industrial building applications. Their significant mechanical and load resistance properties are due to the design of the multiwall structure which has been specially formulated to guarantee optimum performance in all applications. Complementary accessories developed to complete installation enhance the functional properties of the system.

Optical properties

The optical properties of Alfa Roof Plus panels derive from a careful selection of raw materials.

The quality controlled production process (governed and certified by the ISO 9001 system) guarantees optimal luminosity performance over time. This allows natural light to be exploited to the maximum thereby reducing energy consumption and consequently CO₂ emissions.

Thermal and acoustic insulation

The construction sector is facing a significant challenge with regards to energy efficiency, both in civil and industrial sectors. The thickness and multiwall structure of Alfa Roof Plus panels mean that they are able to offer high levels of thermal insulation "U", which translates into increased energy saving both in summer and winter.

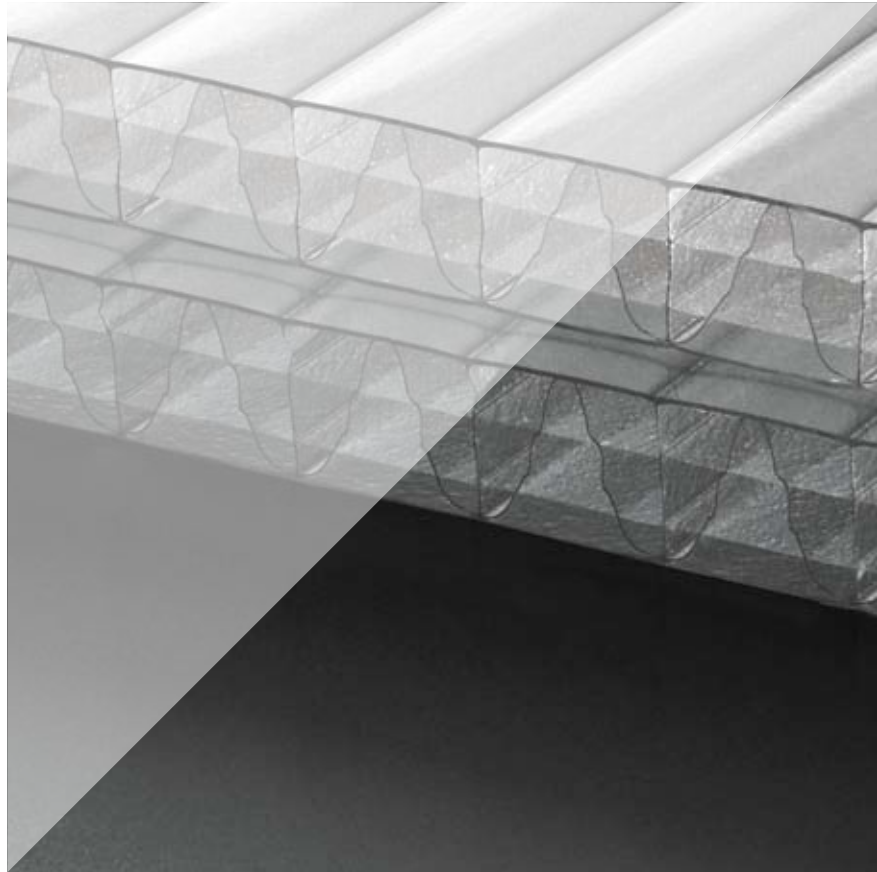
Their total mass also guarantees good levels of noise reduction.

Fire performance

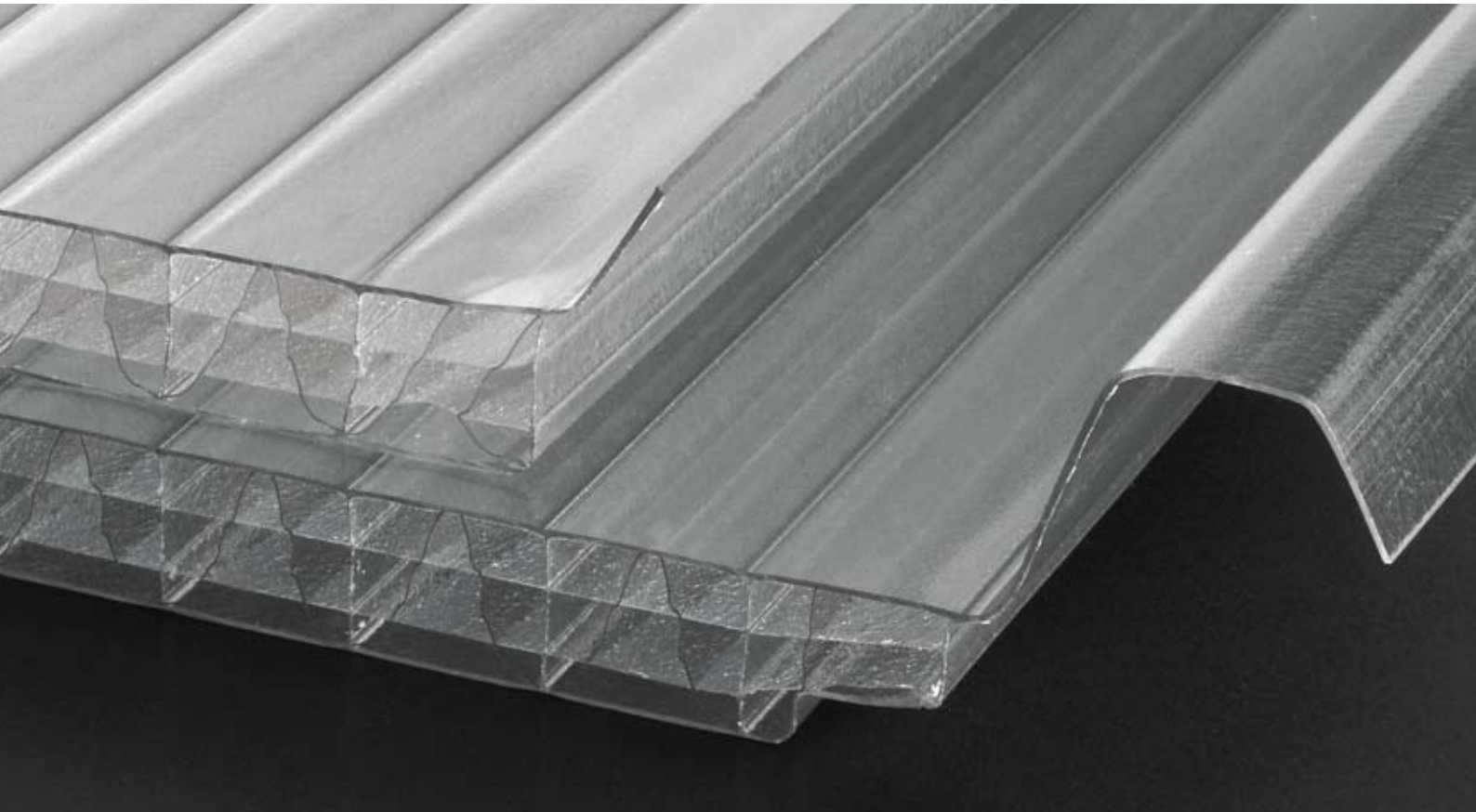
Fire safety is absolutely essential. Alfa Roof Plus have Euroclass B s2 d0 certification, issued by qualified and accredited independent laboratories. This means that the panels do not contribute to flame propagation and do not emit toxic fumes, in accordance with the restrictive regulations governing this sector.

Environmental conditions resistance

Alfa Roof Plus panels are protected against UV degradation thanks to a special treatment which is part of the co-extrusion production process. This protection maintains optical, mechanical and performance qualities of the product over time. To ensure protection from impurities, the ends of multiwall panels are tape sealed.



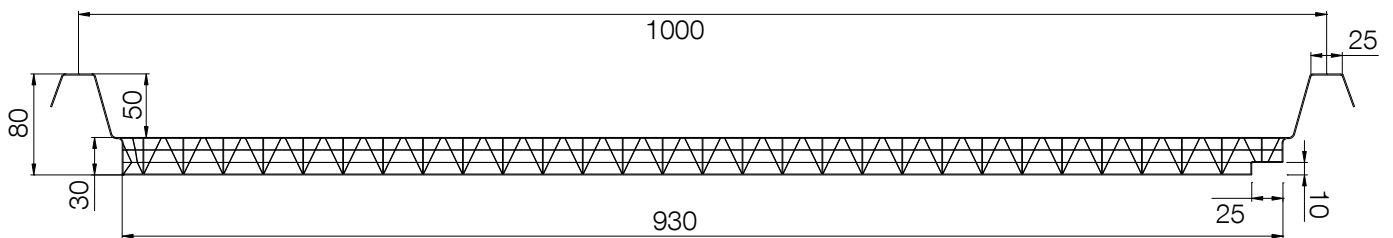
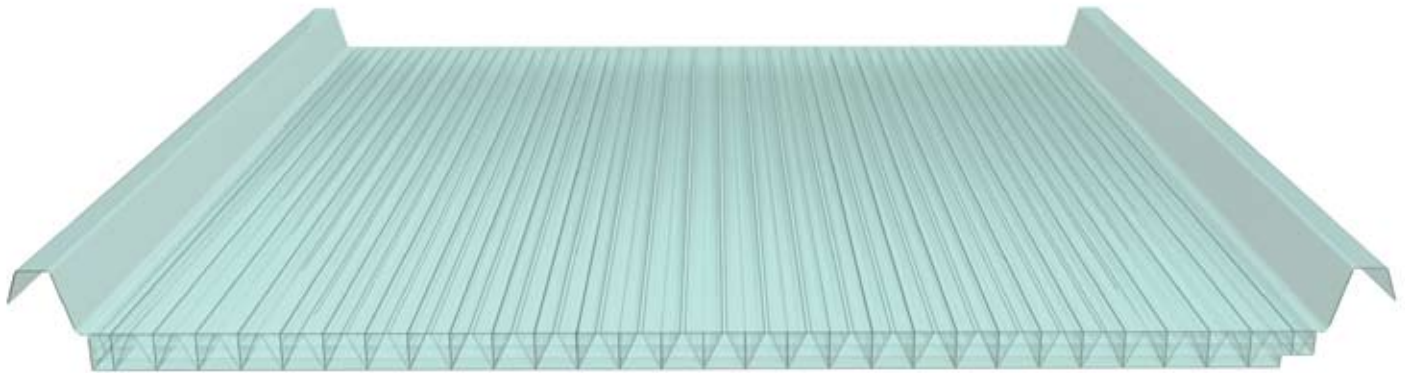
Alfa Roof Plus multiwall panels have been designed for industrial building applications. They are principally used for flat and curved roofs in combination with polyurethane insulating panels and corrugated metal profiles. The panels have been developed using innovative and certified technology and are produced in a standard thickness of 30mm, although can also be produced in other thicknesses. Alfa Roof Plus meet the construction needs of industrial builders as they can be used in a wide range of different applications. Alfa Roof Plus demonstrate the mechanical and physical characteristics of polycarbonate at their best, guaranteeing the highest application standards even when used for particularly innovative projects.



Alfa Roof Plus panels are used, in combination with polyurethane insulation panels and corrugated metal profiles, in roofing and glazing applications where specific areas of light are required. The panels are suitable for modern design projects and industrial renovation work. Alfa Roof Plus are available in both flat and curved versions (3500 mm and 6000 mm radius). The standard 30mm thickness, in 'M' structure, is cost effective and provides excellent structural performance and flexibility of use, enabling it to meet the diverse requirements and ever-evolving design needs of building and construction.

The excellent performance characteristics of Alfa Roof Plus panels combine: high resistance to uniform loads; good thermal insulation; excellent weathering resistance; speed and ease of installation; low transport costs due to the way the panels fit snugly one on top of the other. To reduce internal condensation and the accumulation of dust particles within the flutes, the panels are supplied with the ends taped. Alfa Roof Plus panels conform to all current European regulations. To further facilitate the installation of Alfa Roof Plus panels, optional accessories are available.

Technical Data



Specifications

Production of flat skylights using “Alfa Roof Plus” multiwall polycarbonate panel.

Production of curved skylights using “Alfa Roof Plus” multiwall polycarbonate panel.

Thickness 30 mm

UV protection on external side

Colour: clear or opal, with satin effect

“U” value: 1.6 W/m² K for flat Vega

“U” value: 1.6 W/m² K for curved Vega

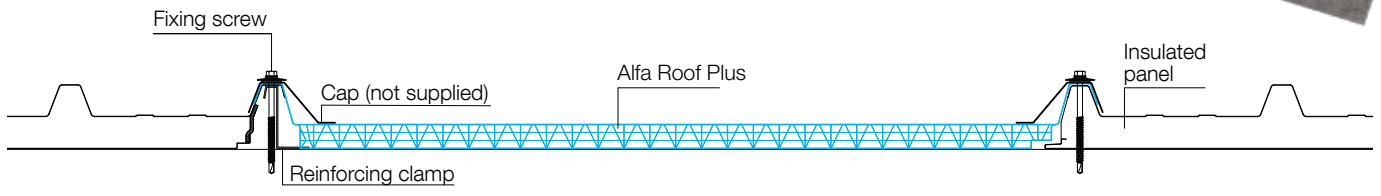
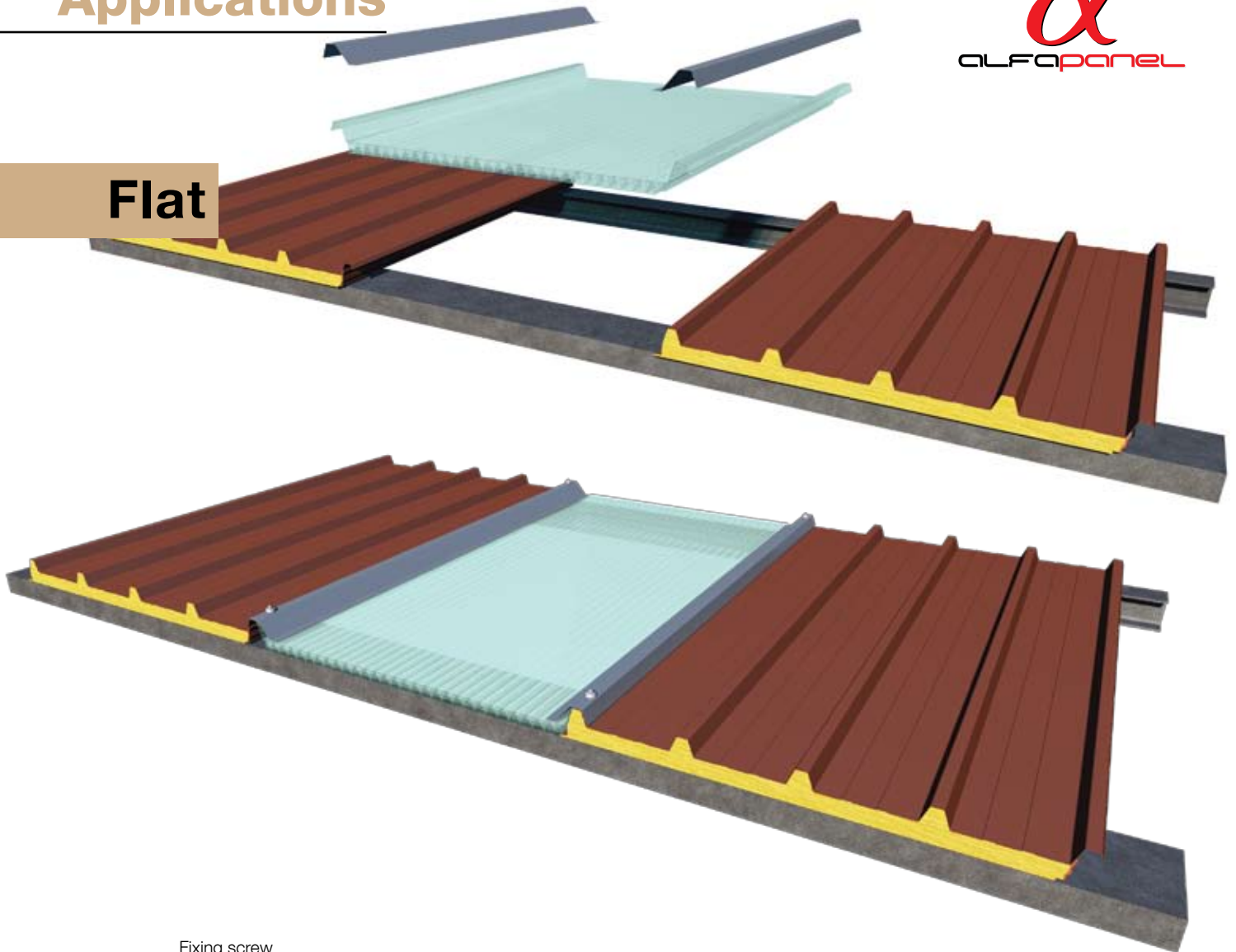
Fire reaction: Euroclass B s2 d0

Universal coupling system with all insulating panels

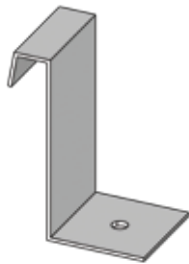
Applications



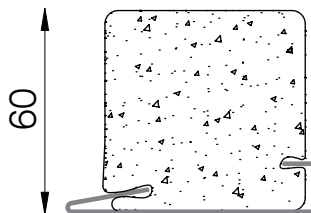
Flat



Accessories



Reinforcing clamp

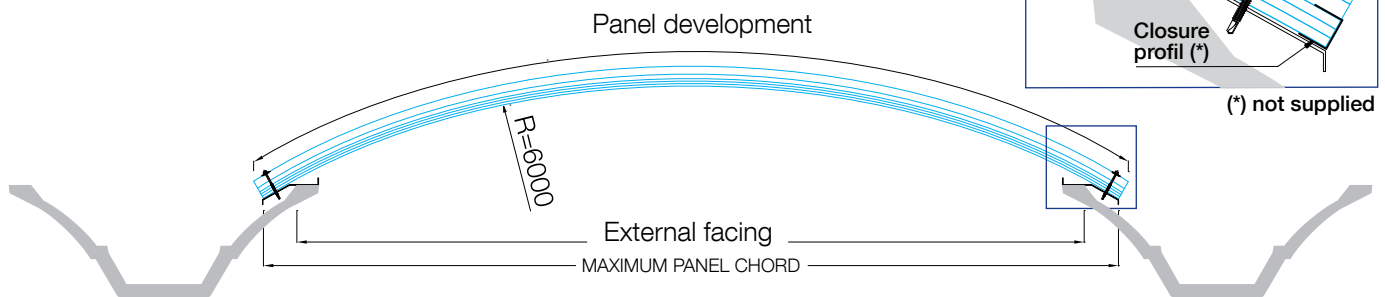
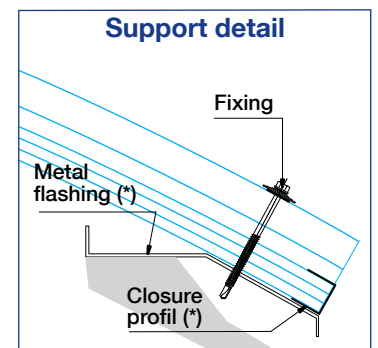
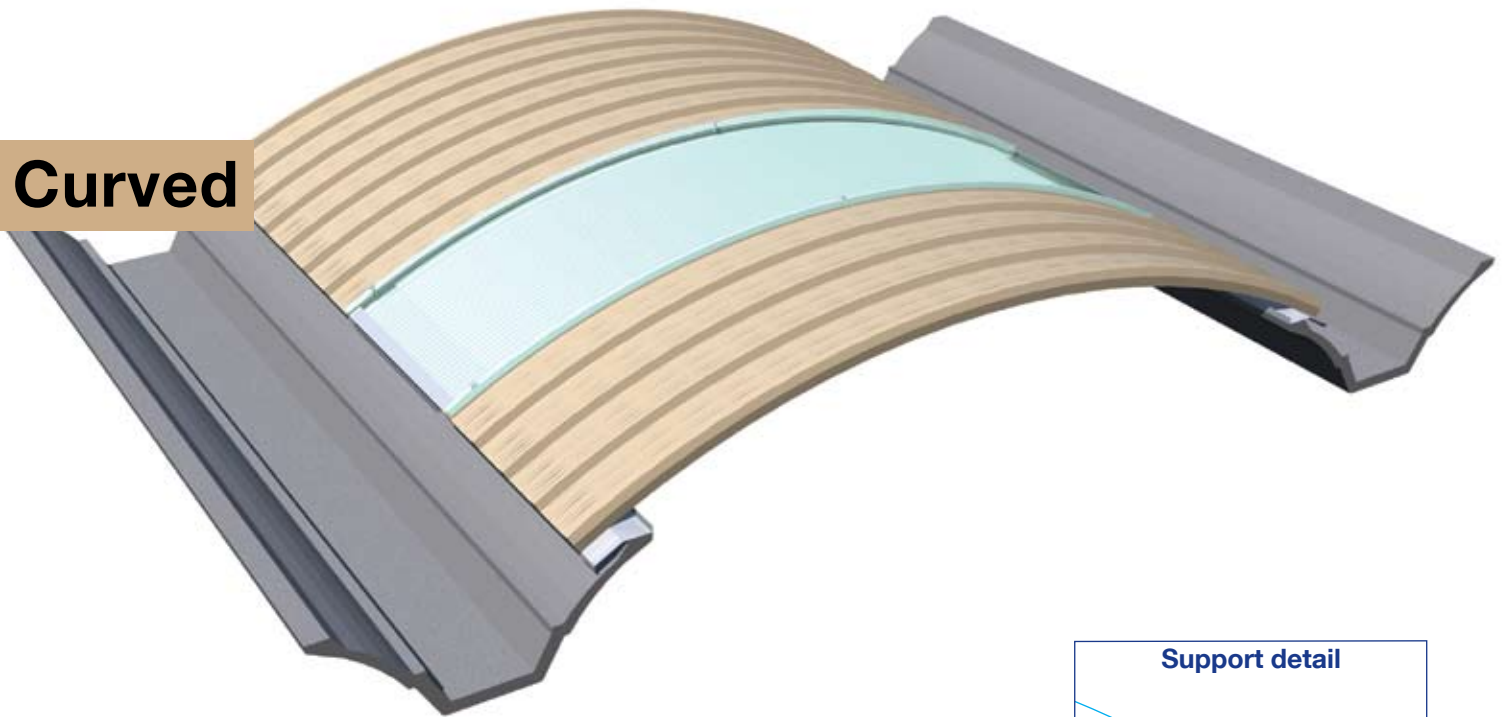


Side insulating element



Fixing screw
6,3 x 120 mm

Curved



Accessories



Fixing screw
6,3 x 120 mm

Characteristics	Unit of measurement	Alfa Roof Plus flat	Alfa Roof Plus curved
Geometric Characteristics			
thickness	mm	30	30
structure	type	5 "M" walls	5 "M" walls
width	mm	930 / fixing distance 1000	930 / fixing distance 1000
sheet length	mm	to size**	to size**
side wing depth	mm	80 mm	80 mm
Technical Characteristics			
thermal conductivity (U)	W/m ² K	1,6	1,6
service temperature range*	°C	- 40 / + 130	- 40 / + 130
thermal expansion	$\frac{\text{mm}}{\text{m } ^\circ\text{C}}$	0,065	0,065
light transmission (LT) clear	%	45 ^{***}	45 ^{***}
light transmission (LT) opal	%	- ^{***}	- ^{***}
UV protection	YES/NO	YES	YES
heat sealing	YES/NO	NO	NO
fire certification	YES/NO	YES (on request)	YES (on request)
guarantee	years	10	10

* The maximum service temperature value refers to RTI (Relative Thermal Index) according to UL 746B – the typical value of high molecular weight polycarbonate -

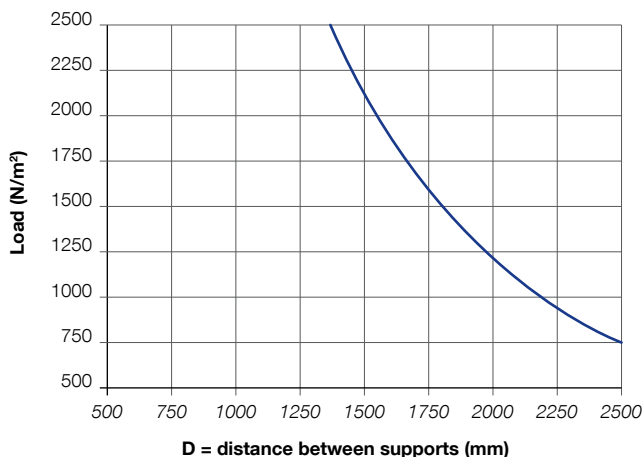
** Recommended maximum length = 7 metres

*** Values tested in our laboratory



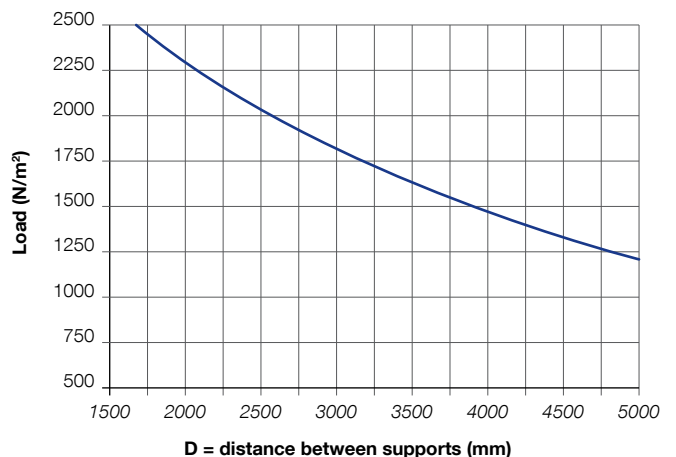
Alfa Roof Plus flat

Load table with three or more supports

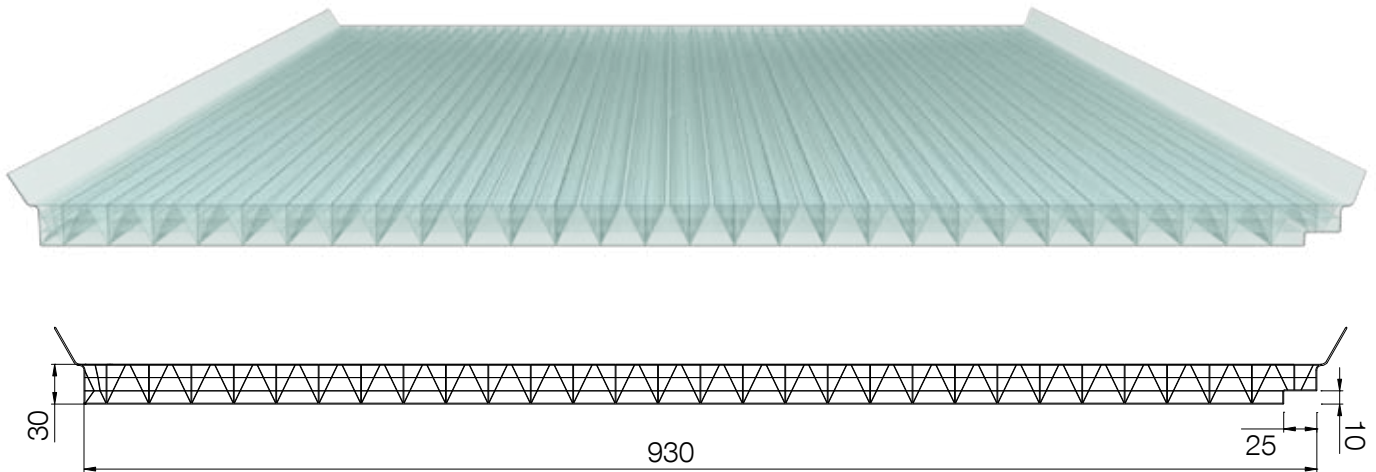


Alfa Roof Plus curved

Load table 6 m radius



Technical Data



Characteristics	Unit of measurement	Alfa Roof Plus
Geometric Characteristics		
thickness	mm	30
structure	type	five 'M' walls
width	mm	930 / fixing distance 1000
sheet length	mm	to size
depth	mm	30
Technical Characteristics		
thermal conductivity (U)	W/m ² K	1,6
service temperature range*	°C	- 40 / + 130
thermal expansion	$\frac{\text{mm}}{\text{m } ^\circ\text{C}}$	0,065
light transmission (LT) clear	%	45**
light transmission (LT) opal	%	-**
UV protection	YES/NO	YES
heat sealing	YES/NO	NO
fire certification	YES/NO	YES
guarantee	years	10



Specifications

Production of flat skylights using "Alfa Roof Plus" multiwall polycarbonate panel.

Thickness 30 mm

UV protection on external side

Colour: clear or opal, with satin effect

"U" value: 1.6 W/m² K

Fire reaction: Euroclass B s2 d0

Universal coupling system with all insulating panels

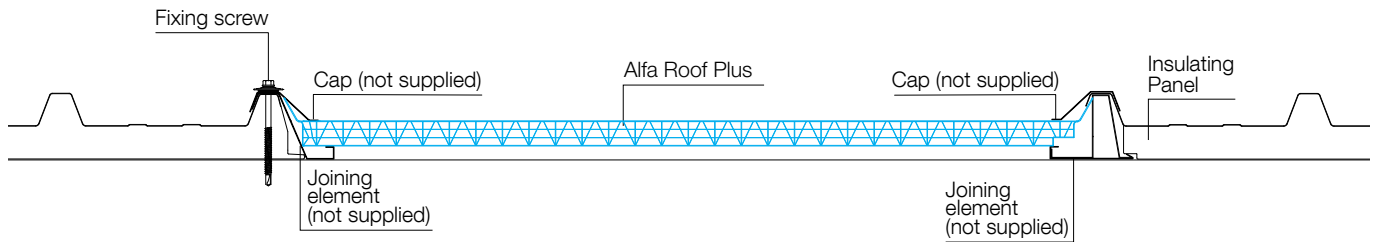
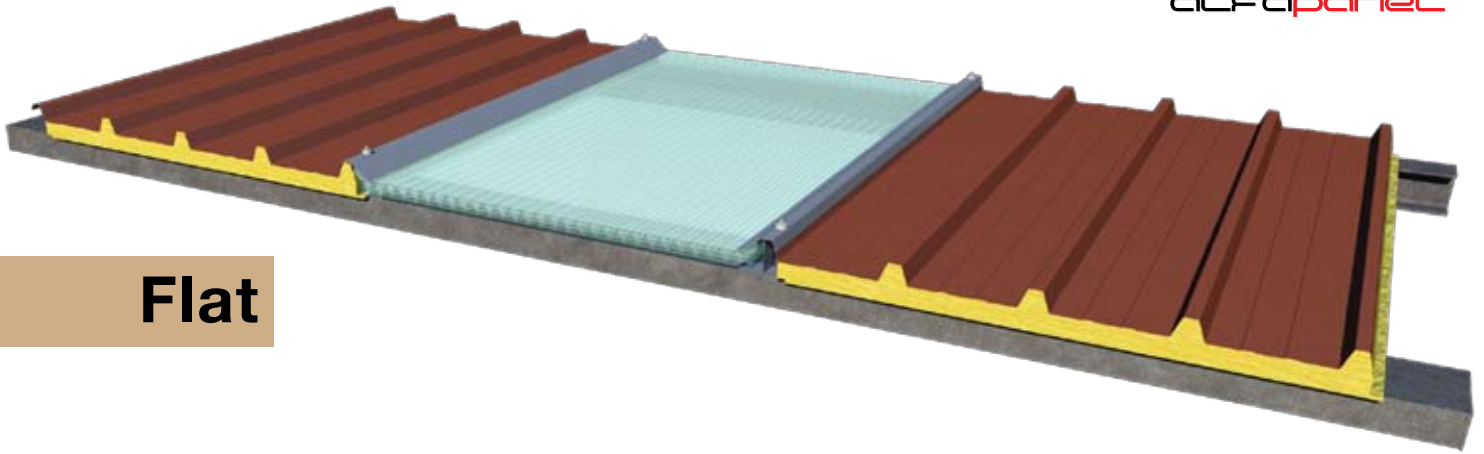
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** Values tested in our laboratory

Applications

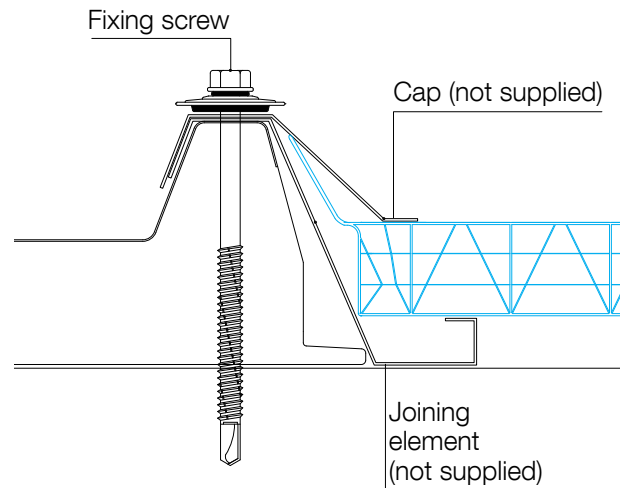
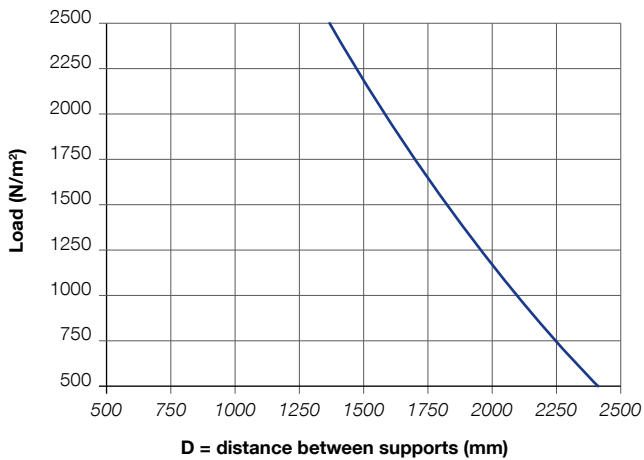


Flat



Alfa Roof Plus flat

Load table with three or more supports



Accessories



Fixing screw
6,3 x 120 mm