

Alfa Roof Gold

6 / 10 / 16 / 25 mm

Structural mechanical properties

Alfa Roof Gold system comes in a practical shape and format, designed to meet specific needs in the creation of translucent covering and glazing for industrial, commercial and domestic buildings. The special structure of the panel making up the system has been designed to give superior load bearing properties and provide ideal performance in all type of applications. The complementary accessories, suggested to complete the system, incorporate the system's functional qualities.

Optical properties

Alfa Roof Gold system owes its optical properties to the carefully selected raw materials it is made of. A monitored and certified quality production process is designed to ensure long lasting light performance to the highest quality standard.

Heat and sound insulation

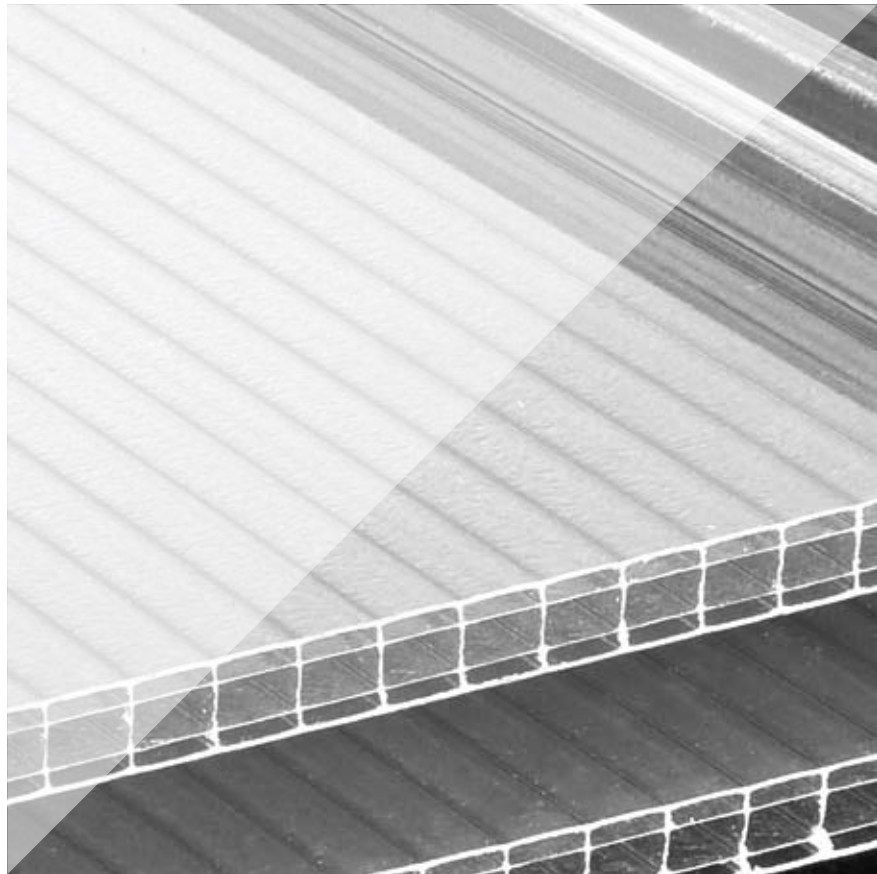
Heat insulation is a characteristic of primary importance in the building industry. Thanks to its multiwall structure, Alfa Roof Gold achieves very high heat insulation values for excellent energy savings and offers considerable sound insulation for a more comfortable environment.

Fire performance

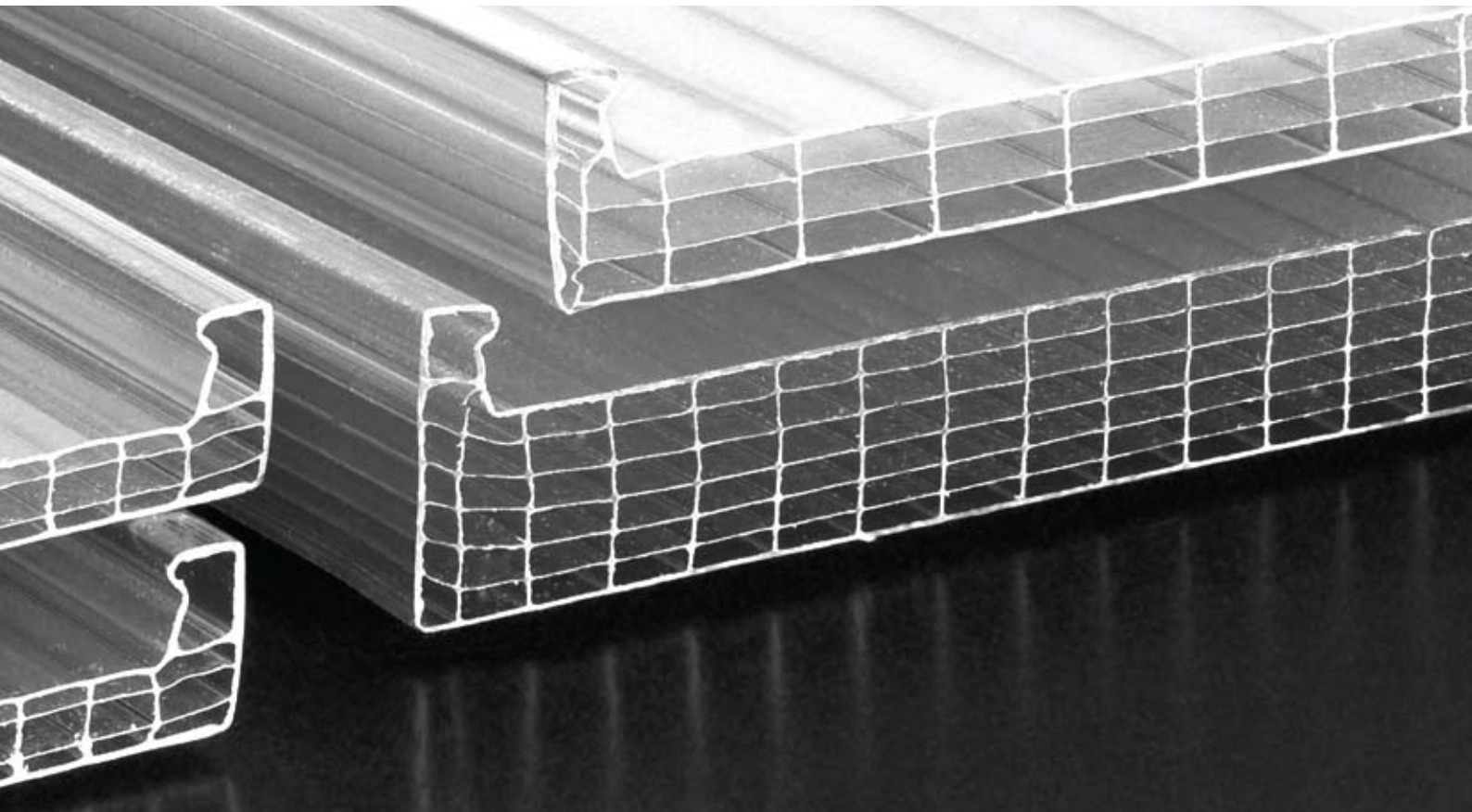
Fire safety is a fundamental requirement. Alfa Roof Gold is provided with Euro class B s1 d0 certification issued by independent qualified laboratories. This means it does not contribute to flame spread and does not emit toxic fumes, in accordance with restrictive building regulations.

Behaviour to environmental conditions

Alfa Roof Gold system panels are protected against the harmful effects of UV rays. This protection is provided by a special treatment applied in co-extrusion studied to ensure long lasting optical, mechanical and performance qualities. In order to avoid impurities inside the structure, a proper tape is applied at panel's ends.



Alfa Roof Gold is a polycarbonate system designed to be used in industrial, commercial and domestic building. The system is used to achieve vertical glazing, flat and curved covering. The panels that make up the system, developed using the most innovative and up to date co-extrusion technologies, come in 6/10/16/25 mm with a multiwall structure. Alfa Roof Gold meets the required needs in industrial, commercial and domestic building, finding application in a wide range of different sectors. Alfa Roof Gold brings out the best of polycarbonate's mechanical and physical qualities, ensuring high standards of application, even in particularly innovative projects.



Alfa Roof Gold system is used for flat and curved covering and vertical applications where there is a need to create translucent glazing. The system can be used in the latest building concepts as well as in industrial refurbishment. The system is composed of multiwall polycarbonate panels. The standard 6/10/16/25 mm thickness options offer cost effectiveness, excellent structural performance and adaptability to meet the various design opportunities that are constantly foreseen in building projects, allowing to produce large translucent surfaces. The system is assembled by using a U-shaped polycarbonate or steel coupling profile that joins the panels together, producing a continuous system: a full range of anodized aluminium framing profiles

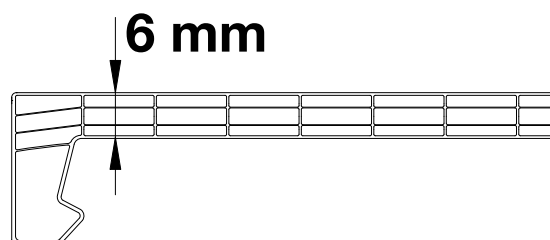
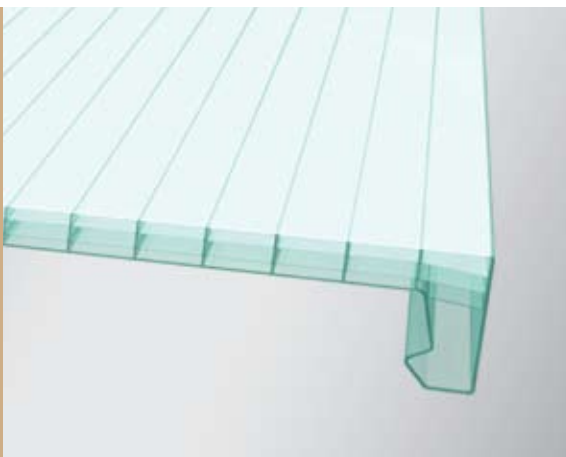
completes the framing structure.

Alfa Roof Gold system offers an excellent combination of performance properties, such as: high capacity to withstand evenly distributed loads; efficient heat insulation; effective resistance to critical weather conditions; quick and easy installation; economic transport costs. The product comes with its ends alu taped or heat sealed to reduce the condensation effect and the entrance of impurities into the cells. Sirius system is certified in conformity with the latest European industry standards. A number of optional accessories complete the Alfa Roof Gold system product range, granting a user-friendly system that is quick and easy to install.

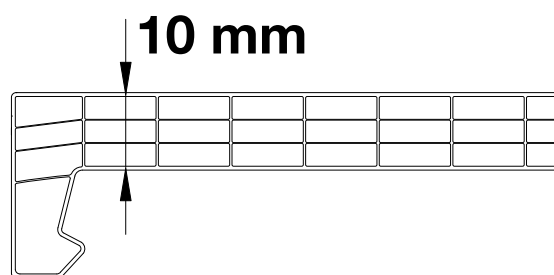
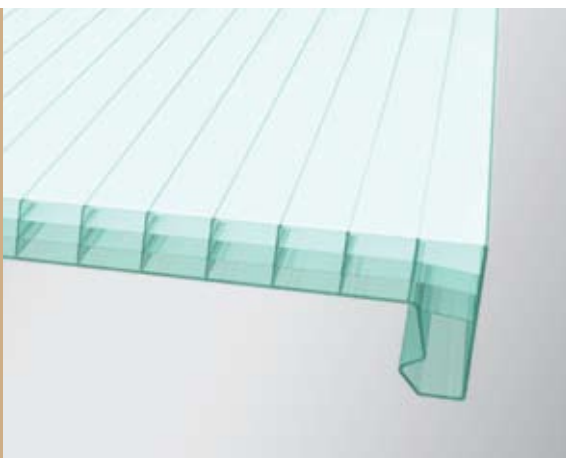
Technical data



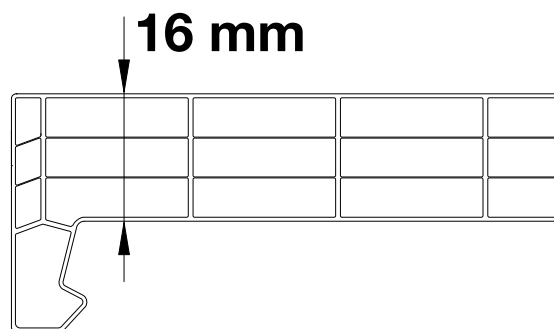
**Alfa
Roof
Gold**
6 mm

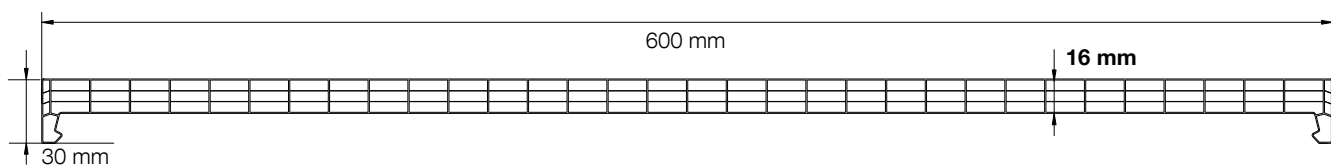
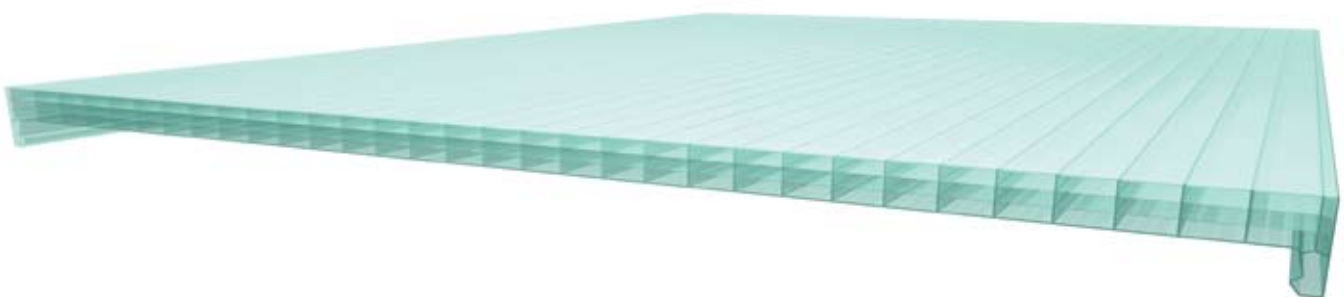
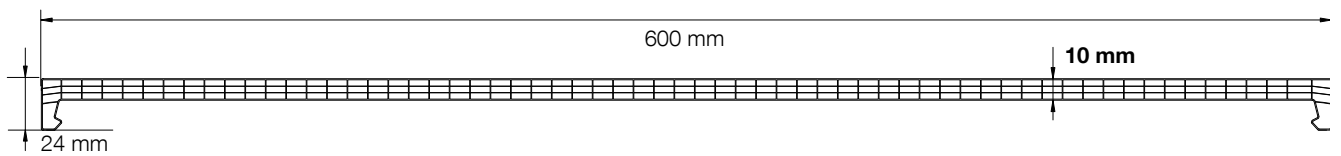
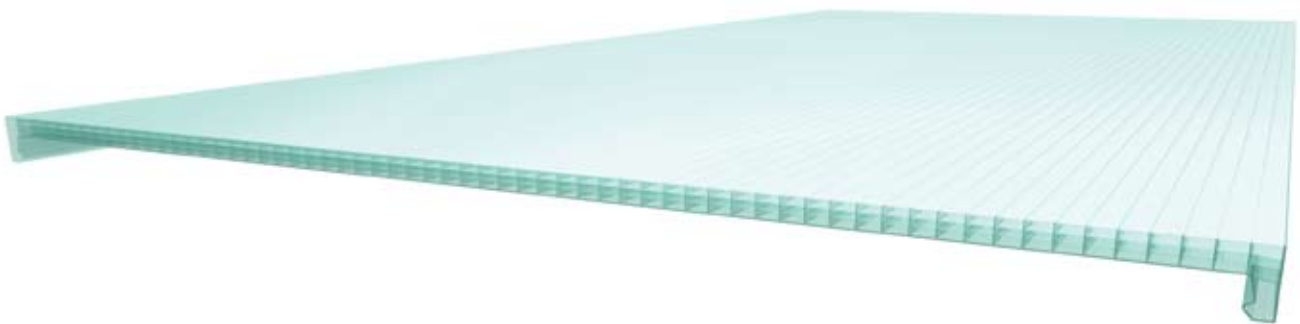
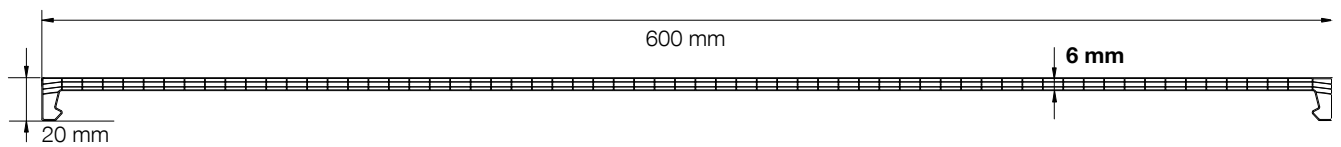
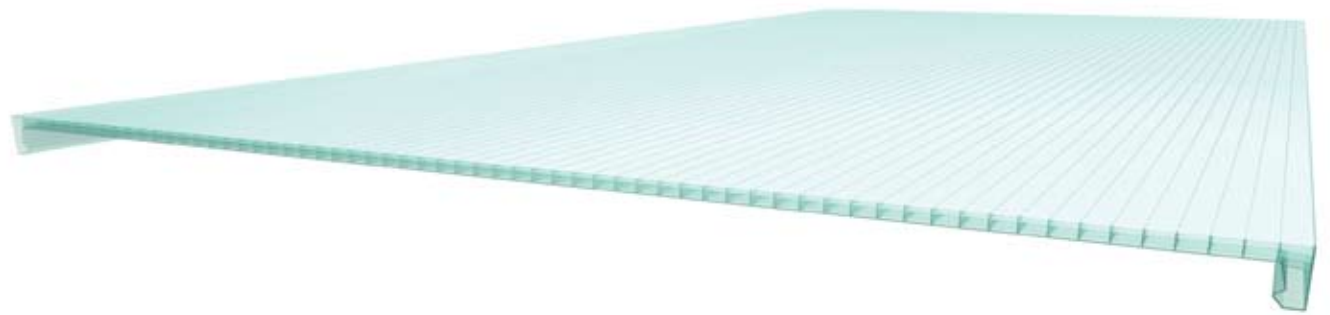


**Alfa
Roof
Gold**
10 mm



**Alfa
Roof
Gold**
16 mm





| Characteristics | Units | Alfa Roof Gold 6 mm | Alfa Roof Gold 10 mm | Alfa Roof Gold 16 mm |
|--|--|--------------------------|--------------------------|--------------------------|
| Geometric characteristics | | | | |
| <i>thickness</i> | mm | 6 | 10 | 16 |
| <i>structure</i> | type | 4 walls (triple chamber) | 4 walls (triple chamber) | 4 walls (triple chamber) |
| <i>width</i> | mm | 600 | 600 | 600 |
| <i>sheet length</i> | mm | customized | customized | customized |
| <i>min. curved radius</i> | mm | 1800 | 2200 | 3200 |
| Technical characteristics | | | | |
| <i>thermal transmittance (U)</i> | W/m ² K | 3,2 | 2,6 | 2,1 |
| <i>service temperature range*</i> | °C | - 40 / + 130 | - 40 / + 130 | - 40 / + 130 |
| <i>thermal expansion</i> | $\frac{\text{mm}}{\text{m } ^\circ\text{C}}$ | 0,065 | 0,065 | 0,065 |
| <i>light transmission (LT) translucent clear</i> | % | 79 ^{***} | 76 ^{***} | 65 ^{***} |
| <i>light transmission (LT) translucent opal</i> | % | 50 ^{***} | 48 ^{***} | 41 ^{***} |
| <i>UV protection on both sides</i> | YES/NO | YES | YES | YES |
| <i>thermo-sealing</i> | YES/NO | YES | YES | YES |
| <i>warranty</i> | years | 10 | 10 | 10 |

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

** Values tested in-house



Specification

Alfa Roof Gold system for the realization of translucent glazing and flat and curved covering made in multiwall polycarbonate.

Thickness 6 / 10 / 16 mm

Width 600 mm

UV protection on both sides

Clear or opal colour, with satin effect

Sirius 6 mm - U value: 3,2 W/m² K

Sirius 10 mm - U value: 2,6 W/m² K

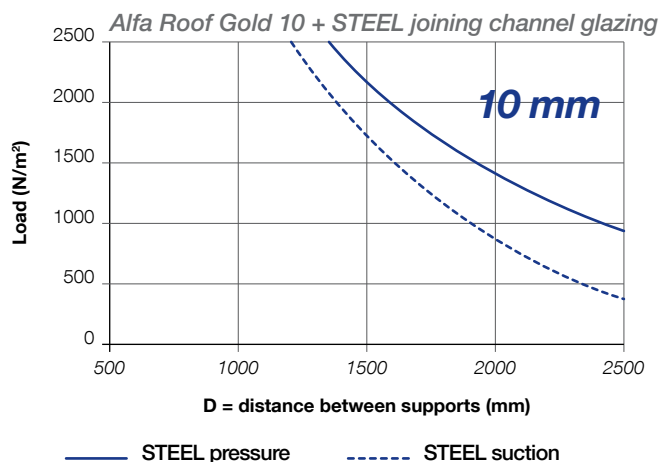
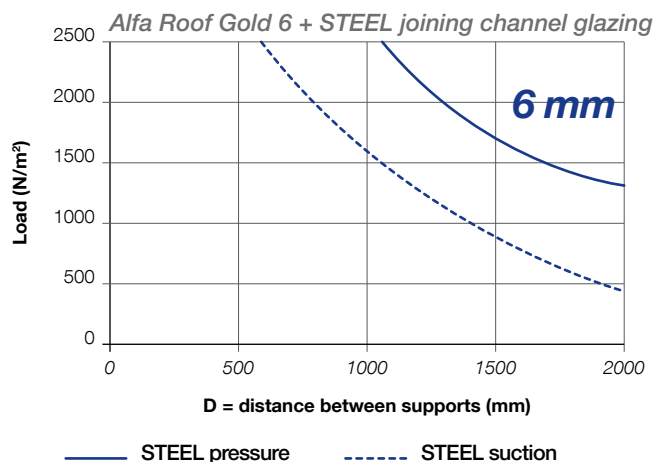
Sirius 16 mm - U value: 2,1 W/m² K

Fire performance, Euro classe B s1 d0

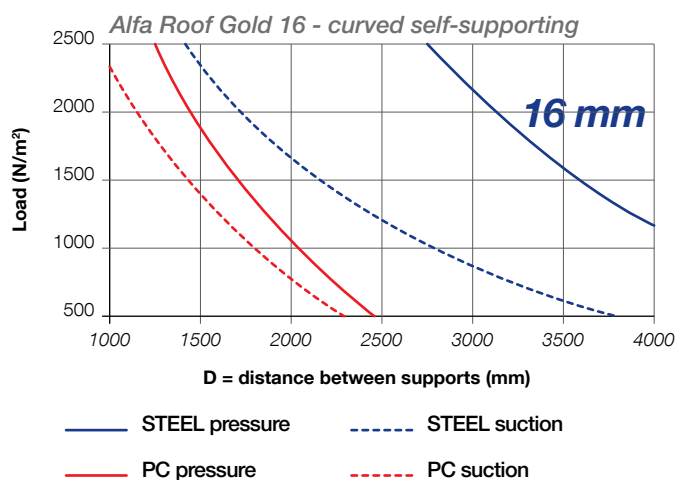
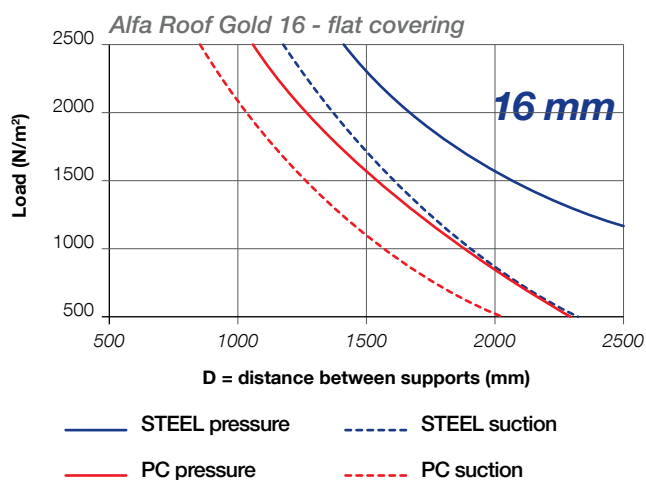
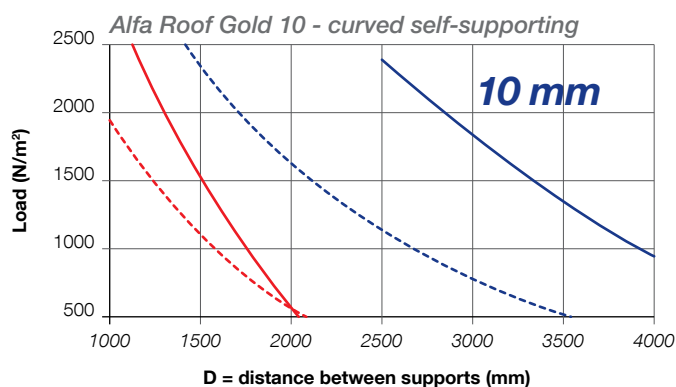
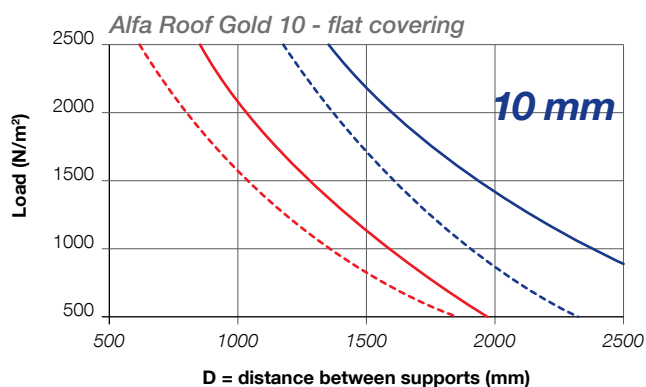
Full range of accessories

Opening frame option

Three or more supports for glazing - load table



Three or more supports for flat covering - load table

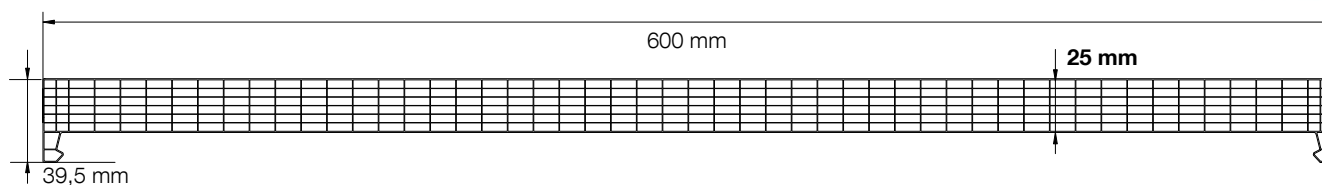
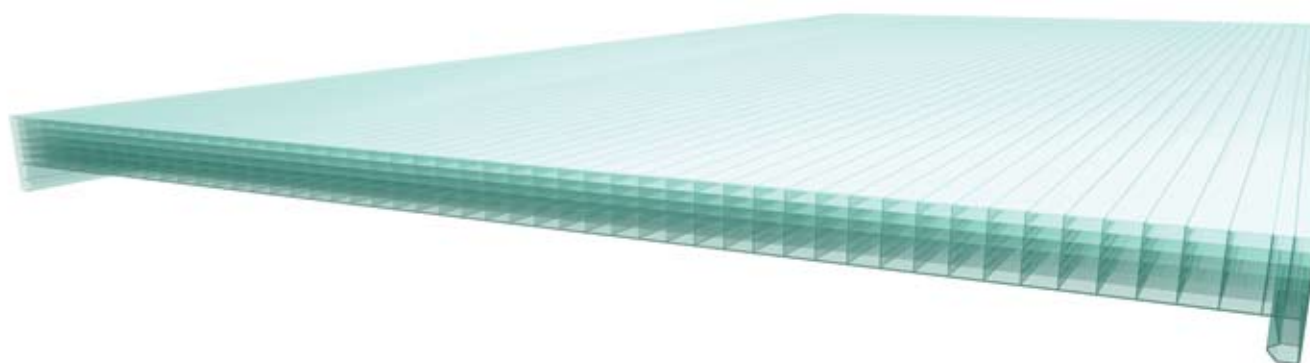
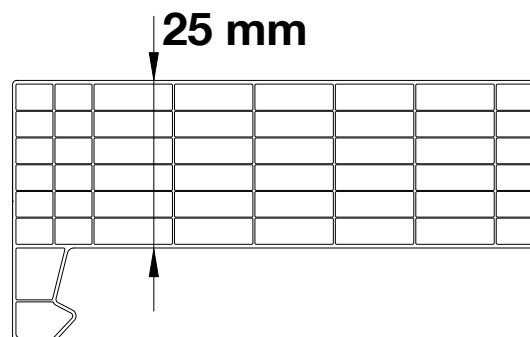
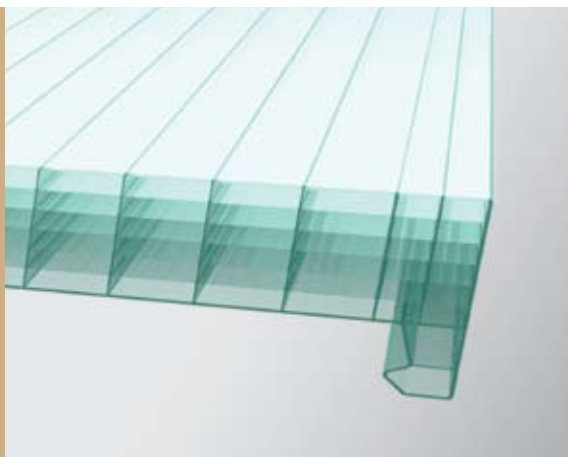


The graphs refer to the system's ultimate load value. The actual loads acting on the system must be checked by the designer along with the amplification and safety factors to be applied, allowing both for the site's usual climatic conditions and the general and specific characteristics of the building or structure where the system in polycarbonate shall be installed. For those evaluations, please refer specifically to rules applied in each country. For detailed technical data or for further information, refer to the Technical manual or contact our Technical Department.

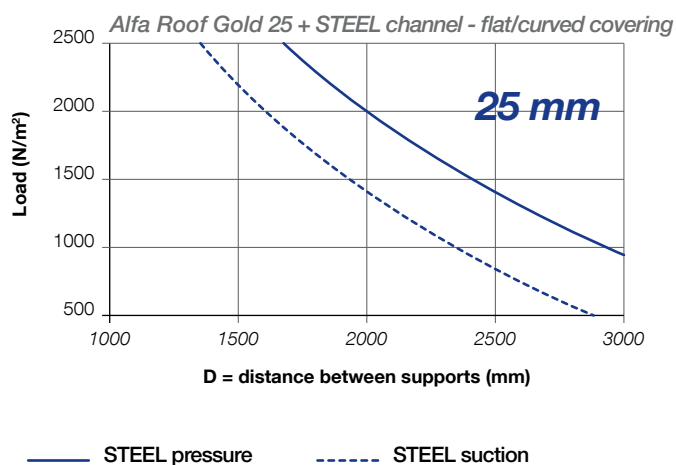
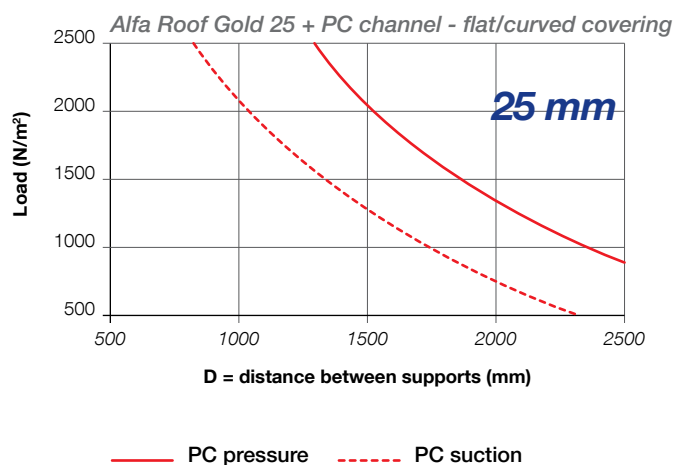
Technical data



**Alfa
Roof
Gold
25 mm**



Load tables for flat or curved covering with load-bearing frame



The graphs refer to the system's ultimate load value. The actual loads acting on the system must be checked by the designer along with the amplification and safety factors to be applied, allowing both for the site's usual climatic conditions and the general and specific characteristics of the building or structure where the system in polycarbonate shall be installed. For those evaluations, please refer specifically to rules applied in each country. For detailed technical data or for further information, refer to the Technical manual or contact our Technical Department.

| Characteristics | Units | Alfa Roof Gold 25 mm |
|--|--|------------------------|
| Geometric characteristics | | |
| <i>thickness</i> | mm | 25 |
| <i>structure</i> | type | 7 walls (six chambers) |
| <i>width</i> | mm | 600 |
| <i>sheet length</i> | mm | customized |
| <i>minimum curved radius</i> | mm | 5000 |
| Technical characteristics | | |
| <i>thermal transmittance (U)</i> | W/m ² K | 1,4 |
| <i>service temperature range*</i> | °C | - 40 / + 130 |
| <i>thermal expansion</i> | $\frac{\text{mm}}{\text{m } ^\circ\text{C}}$ | 0,065 |
| <i>light transmission (LT) translucent clear</i> | % | 63 ^{**} |
| <i>light transmission (LT) translucent opal</i> | % | 35 ^{**} |
| <i>UV protection on both sides</i> | YES/NO | YES |
| <i>aluminium tape sealing</i> | YES/NO | YES |
| <i>warranty</i> | years | 10 |

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

** Values tested in-house



Specification

Alfa Roof Gold system for the realization of flat and curved covering made in multiwall polycarbonate.

Thickness 25 mm

Sheet width 600 mm

UV protection on both sides

Alu taped ends

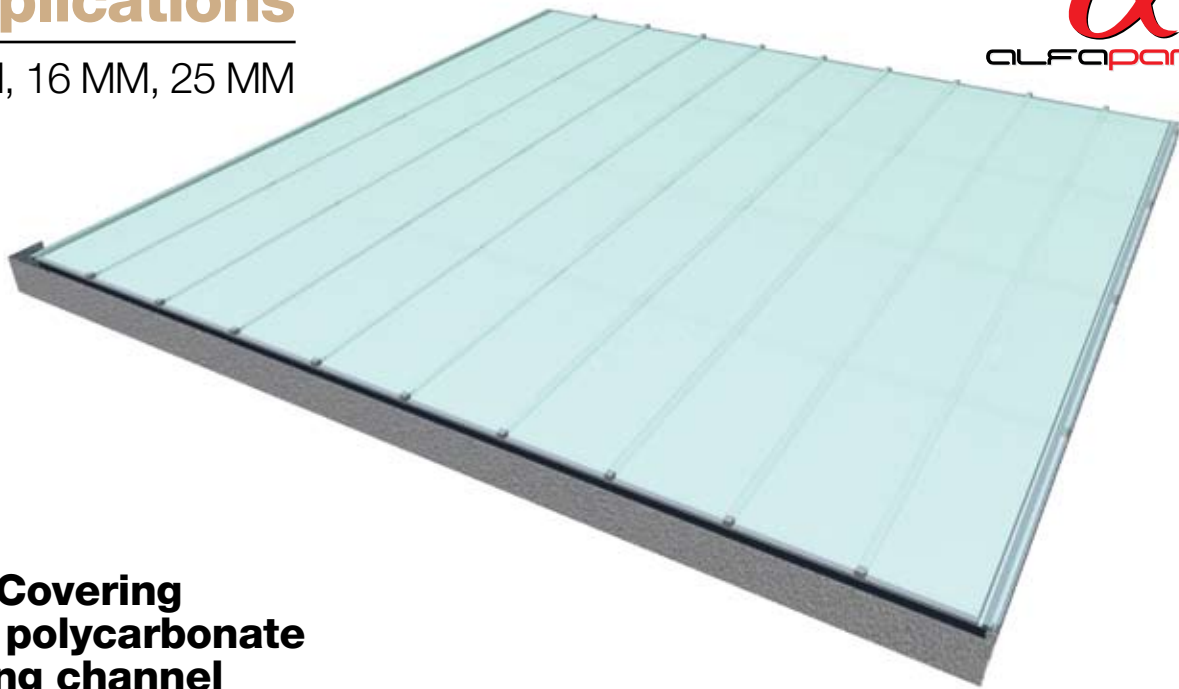
Clear or opal colour, with satin effect

U value: 1,4 W/m² K

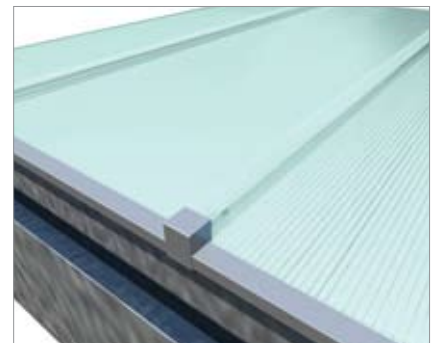
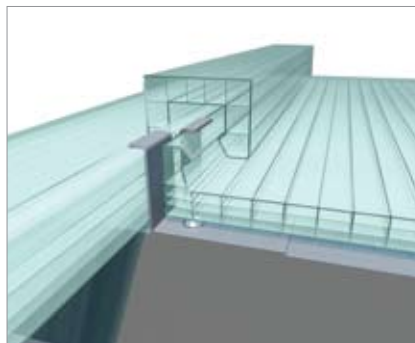
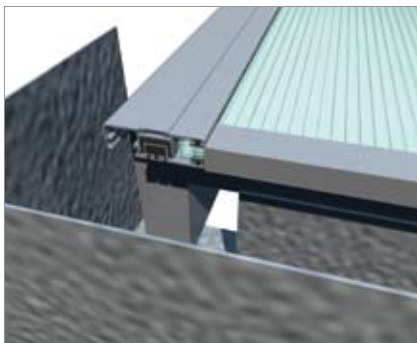
Fire performance, Euro class B s1 d0

Applications

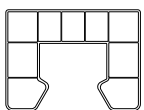
10 MM, 16 MM, 25 MM



Flat Covering with polycarbonate joining channel



Accessories: application with polycarbonate joining channel



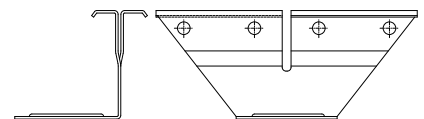
Polycarbonate
joining channel



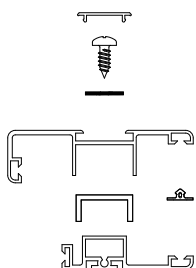
Clamp for Alfa Roof Gold 10



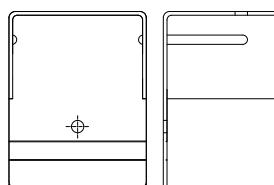
Clamp for Alfa Roof Gold 16



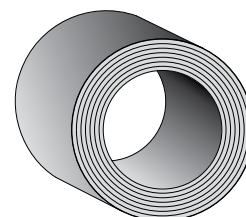
Clamp for Alfa Roof Gold 25



Side closure profile
complete with accessories*



Nylon cap for
Alfa Roof Gold 10 / 16 / 25

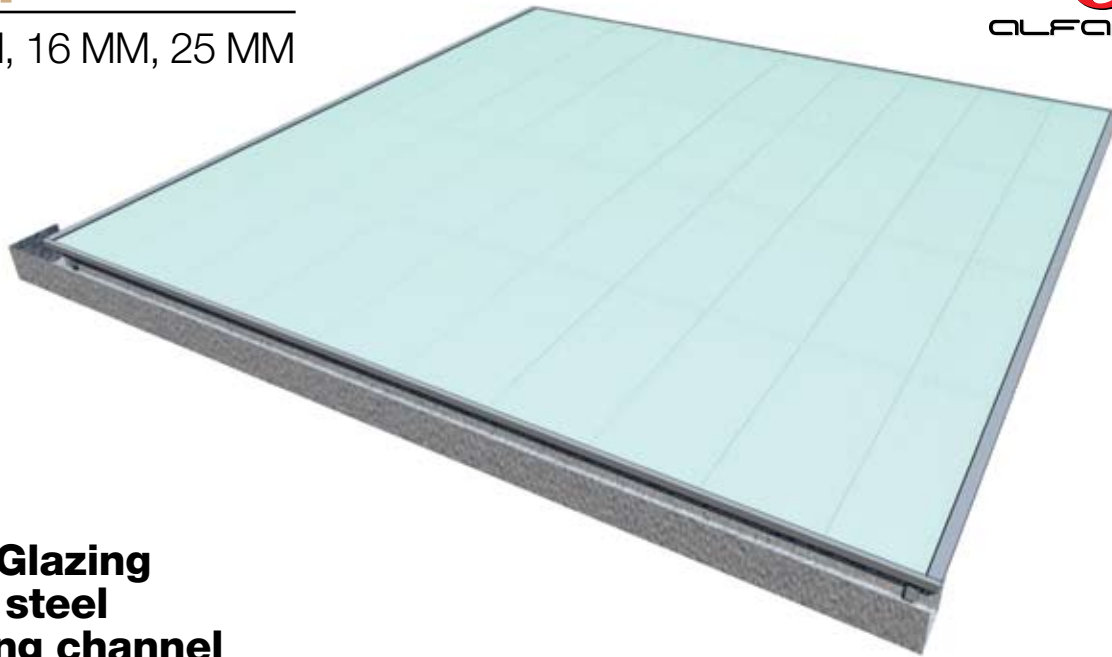


Aluminium tape

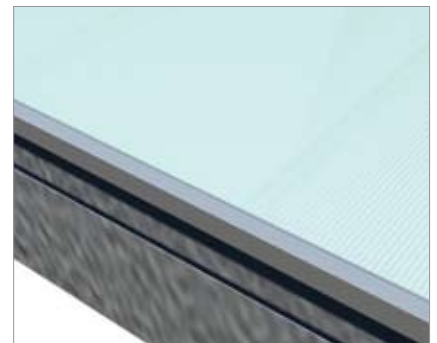
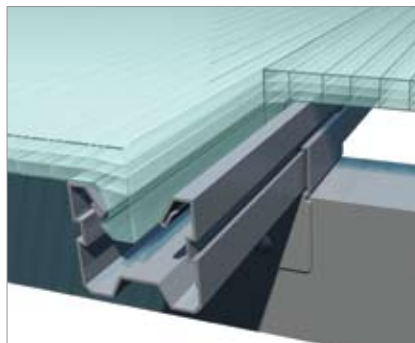
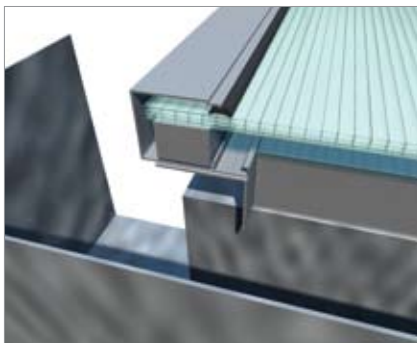
* except for Alfa Roof Gold 25

Applications

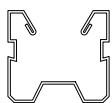
10 MM, 16 MM, 25 MM



Flat Glazing with steel joining channel



Accessories: application with steel joining channel



Steel joining channel*



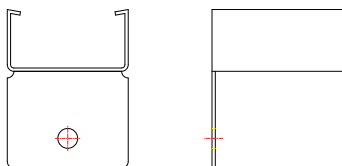
Upper/side profile**



Lower profile**



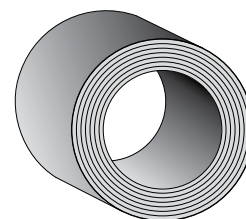
EPDM gaskets**



Clamp for steel joining channel*



PE inlay*



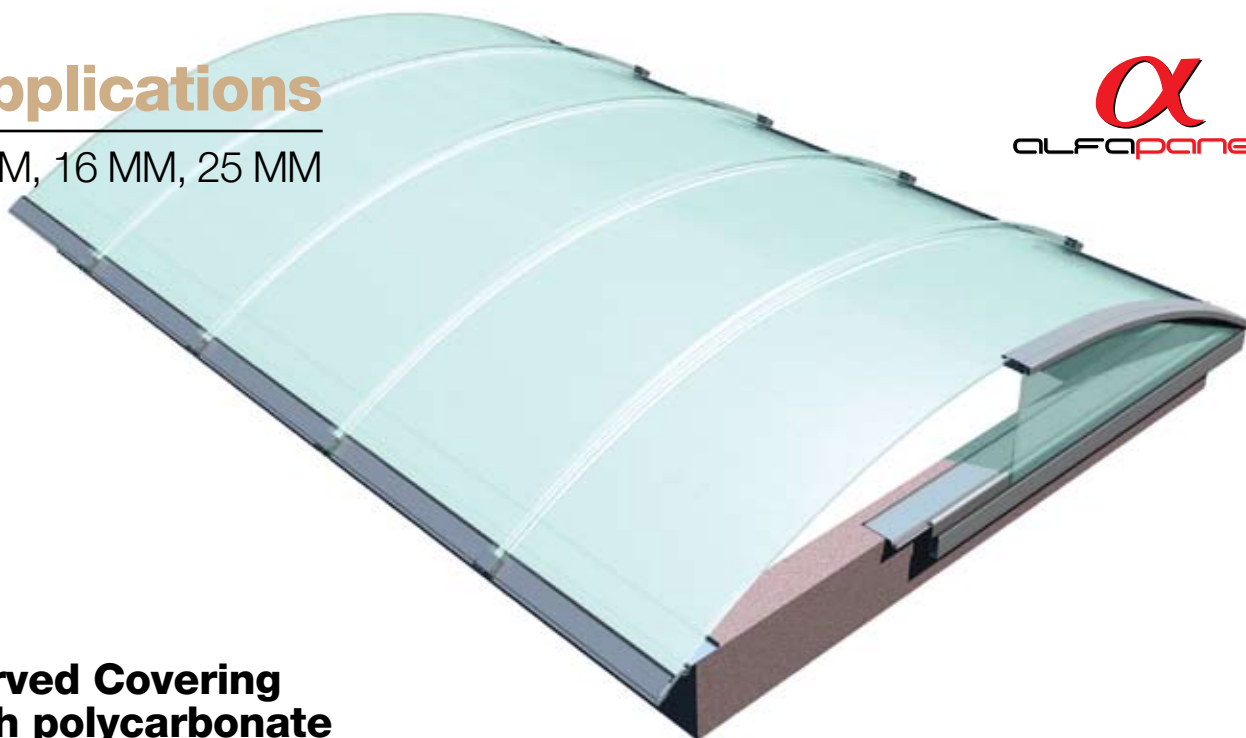
Aluminium tape*

* for Alfa Roof Gold 10 / 16 / 25

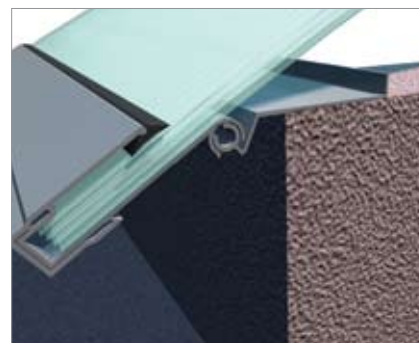
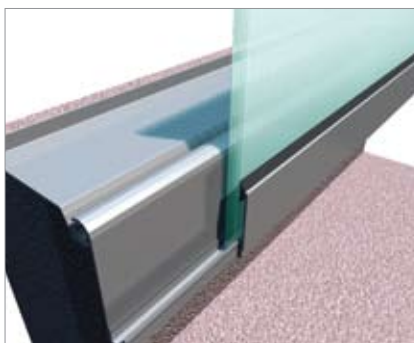
** for Alfa Roof Gold 10

Applications

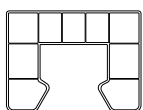
10 MM, 16 MM, 25 MM



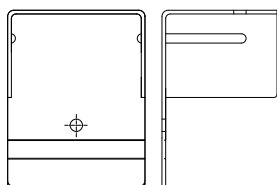
Curved Covering with polycarbonate joining channel



Accessories: application with polycarbonate upright



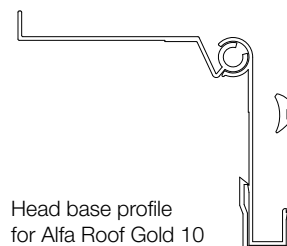
Polycarbonate
joining channel



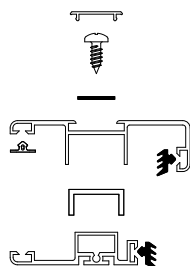
Nylon cap for
Alfa Roof Gold 10 / 16 / 25



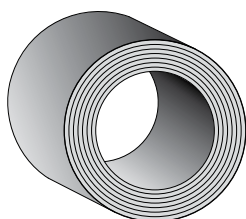
Lateral profile for Alfa Roof Gold
10 complete with accessories



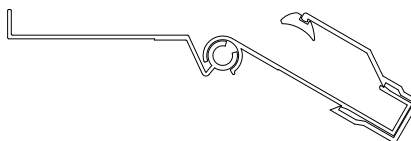
Head base profile
for Alfa Roof Gold 10
complete
with accessories



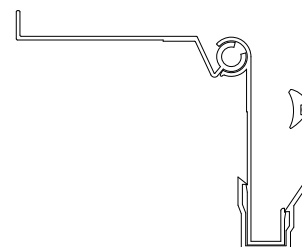
Head upper profile
complete with accessories



Aluminium tape



Lateral profile for Alfa Roof Gold
16 complete with accessories



Head base profile
for Alfa Roof Gold 16 complete
with accessories

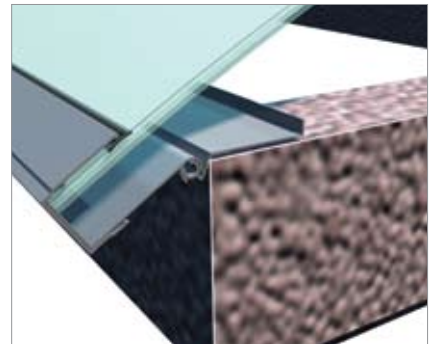
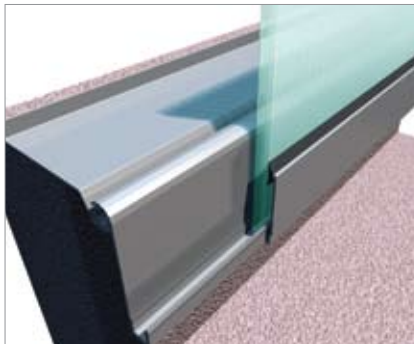
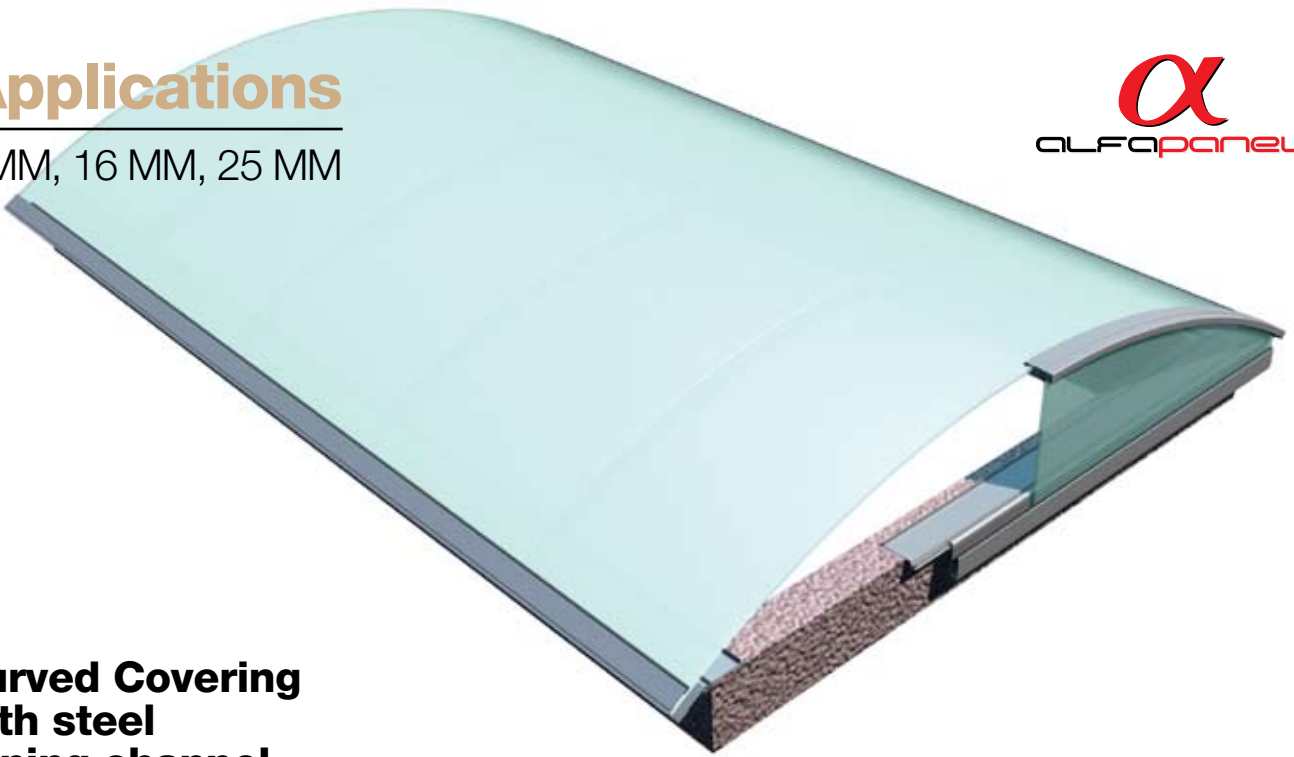
* for Alfa Roof Gold 25 mm: framing at customer's care

Applications

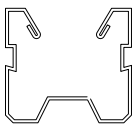
10 MM, 16 MM, 25 MM



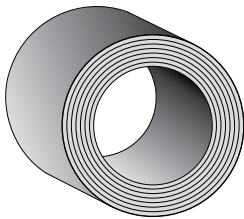
Curved Covering with steel joining channel



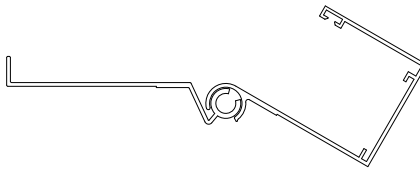
Accessories: application with steel joining channel



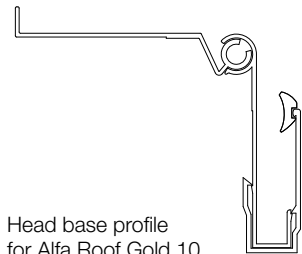
Steel joining channel



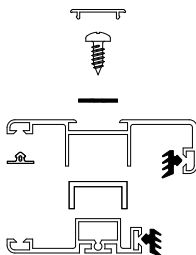
Aluminium tape



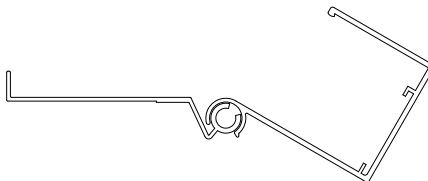
Lateral profile for Alfa Roof Gold 10 complete with accessories



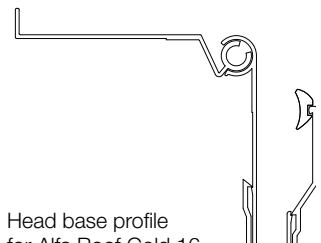
Head base profile for Alfa Roof Gold 10 complete with accessories



Side closure profile complete with accessories



Lateral profile for Alfa Roof Gold 16 complete with accessories



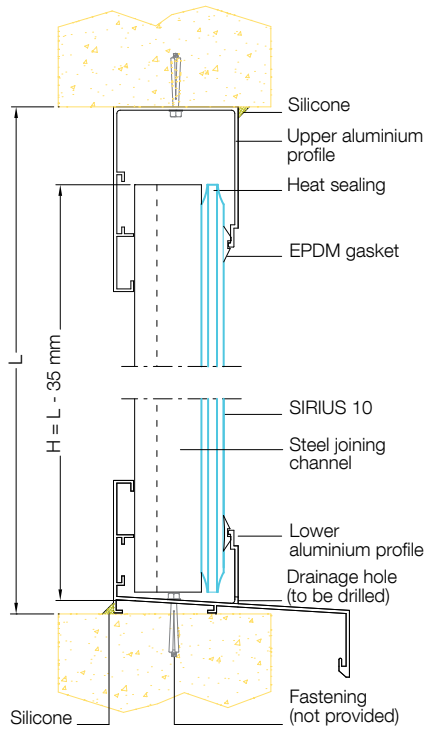
Head base profile for Alfa Roof Gold 16 complete with accessories

* for Alfa Roof Gold 25 mm: framing at customer's care

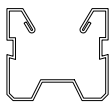
Applications

Glazing

6 MM, 10 MM, 16 MM



Accessories: application with steel joining channel



Steel joining channel*



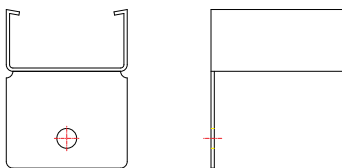
Upper/side profile**



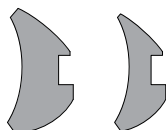
Lower profile**



Lower profile with cover wall**



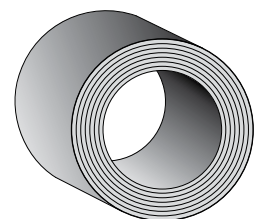
Clamp for steel joining channel*



EPDM gaskets**



PE inlay*

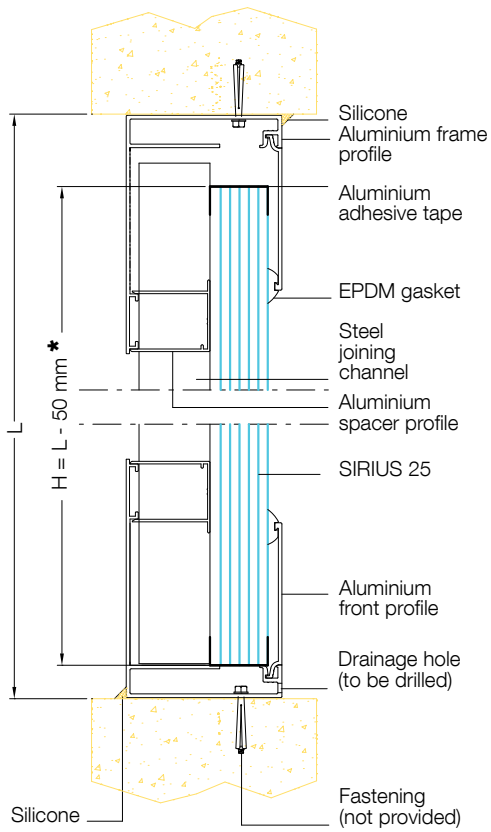


Aluminium tape*

* for Alfa Roof Gold 6 / 10 / 16 ** for Alfa Roof Gold 6 / 10
for Alfa Roof Gold 16 mm: framing profiles at customer's care

Applications

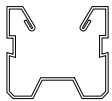
Glazing 25 MM



* Expansion gap to be determined based on length of panels



Accessories: application with steel joining channel



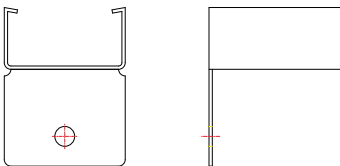
Steel joining channel



Upper/lower/side aluminium profile



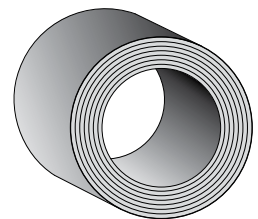
Aluminium spacer profile



Clamp for steel joining channel



EPDM gaskets



Aluminium tape

Openings

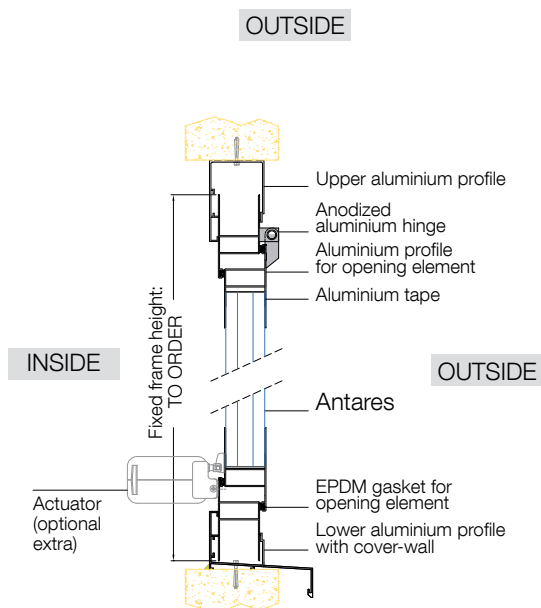
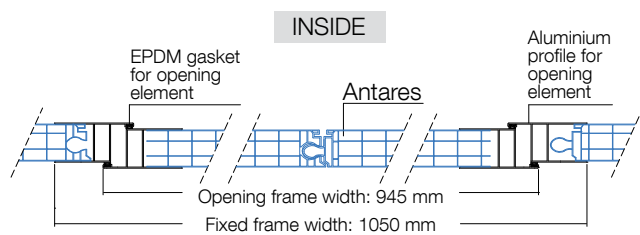


Alfa

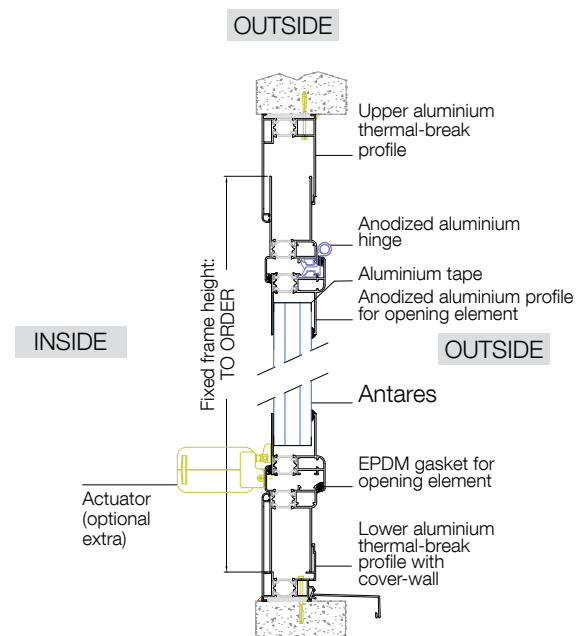
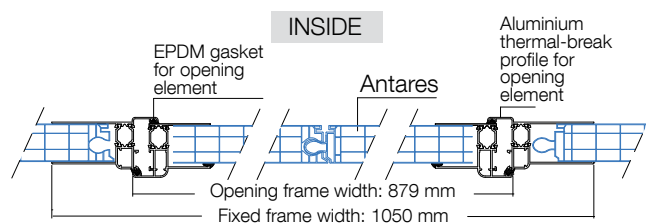
40 MM



Solution with basic profiles



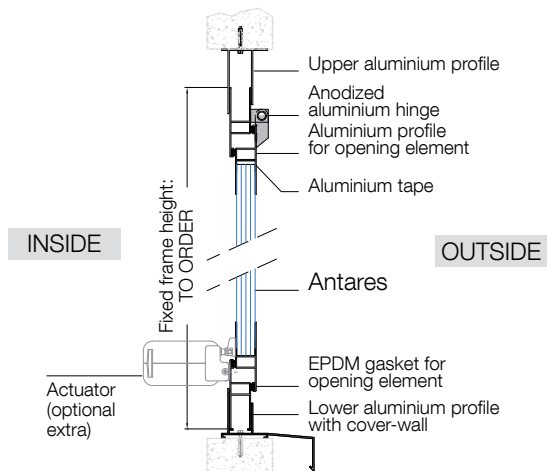
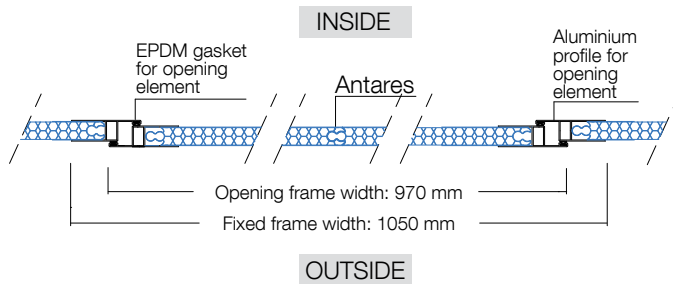
Solution with thermal-break profiles



Openings

Alfa

20 MM



Alfa

10 MM

