Alfa Roof

40/3 - 40/10 - 40/25

Structural mechanical properties
Alfa Roof 40/3-10-25 sheeting comes in excellent, practical shapes and sizes, designed to meet the specific roofing application needs of industrial buildings. The structure of each individual sheet has been designed to give superior load bearing properties and provide ideal performance regardless of the application. The complementary accessories, recommended for a properly finished end result, incorporate the system's functional qualities.

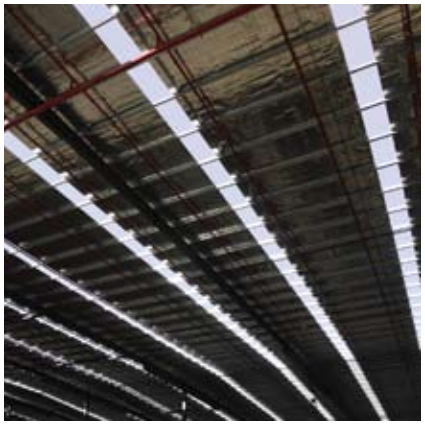
Optical properties
Alfa Roof 40/3-10-25 sheeting owes its optical properties to the carefully selected raw materials it is made with. The monitored and certified quality production process is designed to ensure lasting light performance to the highest standard.

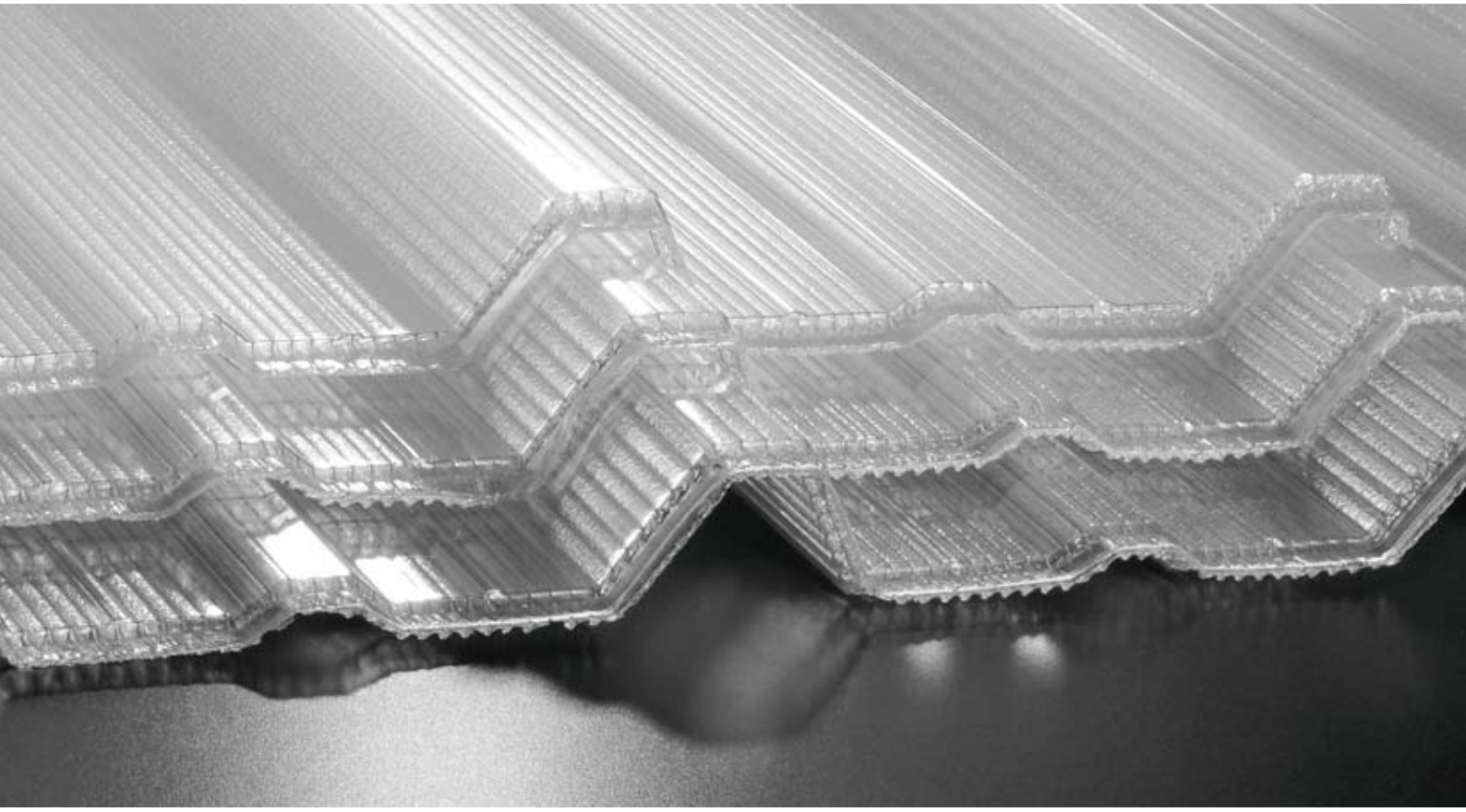
Heat and sound insulation
Heat insulation is a characteristic of primary importance to the building industry. With its multiwall structure, Alfa Roof 40/3-10-25 sheeting achieves very high heat insulation values for excellent energy savings and offers considerable sound insulation for greater occupant comfort.

Fire performance
Fire safety is an essential requirement. Alfa Roof 40/3-10-25 sheeting has Euro class B s1 d0 certification issued by independent qualified laboratories. This means it does not contribute to flame spread and does not give off toxic fumes, in accordance with restrictive building regulations.

Behavior under environmental conditions
Alfa Roof 40/3-10-25 sheeting is protected against the harmful effects of UV rays. This protection is provided by means of the co-extruded application of a special treatment designed to ensure lasting optical, mechanical and performance qualities. With the cells sealed by heat sealing the ends of the sheets with hi-tech instruments, there is less chance of condensation and impurities building up inside the cells.

Alfa Roof 40/3-10-25 are multiwall corrugated sheets designed for use in the industrial building sector. More specifically, the sheeting finds application in fully glazed roofing, in conjunction with polyurethane insulating panels and metal corrugated profiles. They can also be used for producing curved single-pane or continuous skylights, for shed, for vertical glazing etc. Developed using the latest innovative co-extrusion technologies, Alfa Roof sheeting comes in various shapes, sizes and thicknesses to suitably cater to various different types of application in the construction industry, where wide-ranging building needs mean it has a wide and varied field of application. Alfa Roof sheeting brings out the best of polycarbonate's mechanical and physical qualities, delivering the highest standards of application, which are essential in particularly innovative designs.



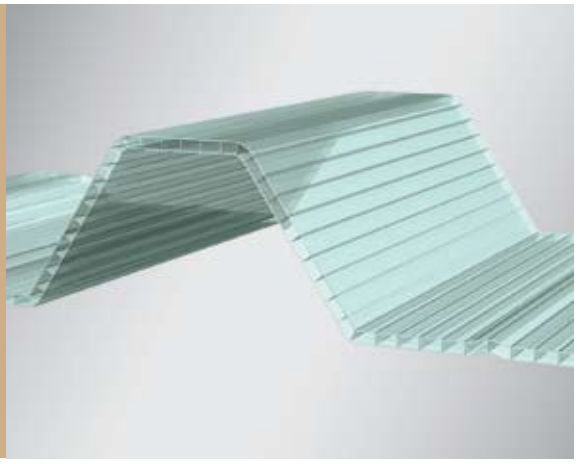


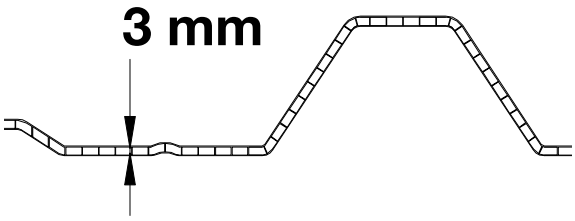
Alfa Roof 40/3-10-25 sheeting is used in roofing applications in conjunction with polyurethane insulating panels and metal corrugated profiles where areas are to be created with a single or multiple source of daylight. It is particularly suitable in industrial refurbishments and for creating rooflights in ridge-to-eaves applications, curved skylights (single, partial or continuous application) and large glazed surfaces. Alfa Roof sheeting comes in various types and sizes: it comes in flat and curved versions (radius 3500 mm and 6000 mm) making very long slope lengths possible by end lapping, as well as wide areas of glazing by exploiting the side lapping option. The various thickness options mean buildings can be produced with different solutions in terms of price, structural performance and efficiency to meet the numerous technical and environmental demands of each individual building project. Alfa Roof 40/3-10-25 sheeting delivers unbeatable performance, namely: high capacity to withstand distributed loads; functional heat insulation; effective weather resistance and, last but not least, quick and easy assembly. Sheets can be laid on top of each other, making materials cheap to transport. The product comes with its ends heat sealed to reduce the condensation effect and build-up of dirt inside the cells. Alfa Roof 40/3-10-25 sheeting is certified in accordance with the latest European industry standards. Alfa Roof 40/3-10-25 sheeting can be side and end lapped, meaning even very long runs can be produced. The series of optional accessories that complete the Alfa Roof 40/3-10-25 product range makes it quick, easy and safe to use and install.

Technical Data

40/3
(250/40)

5 corrugations

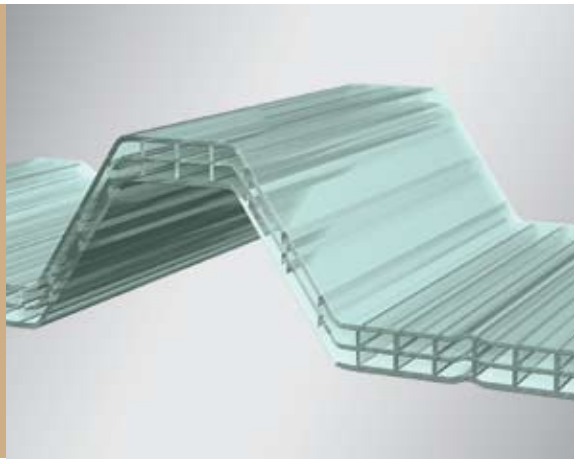


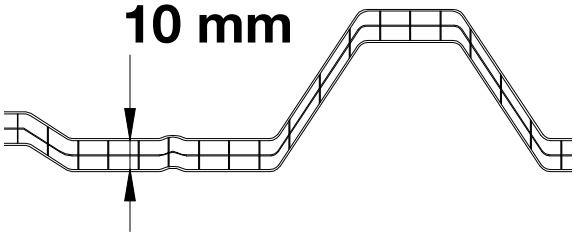


two walls (single chamber)

40/10
(250/40)

5 corrugations

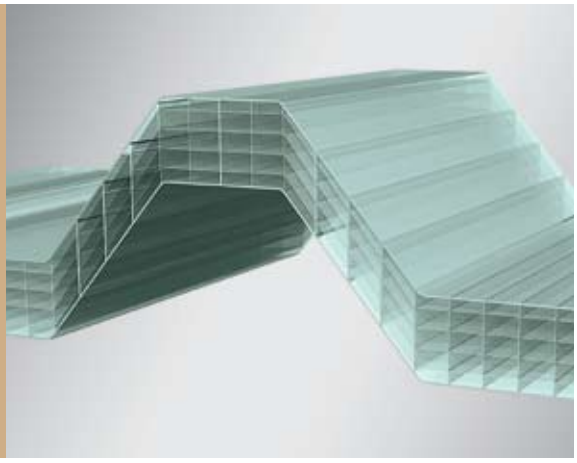


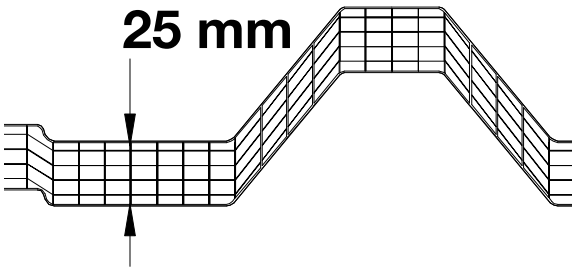


three walls (twin chamber)

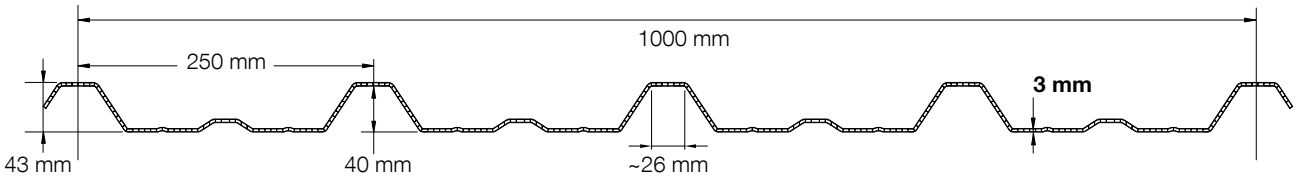
40/25
(250/40)

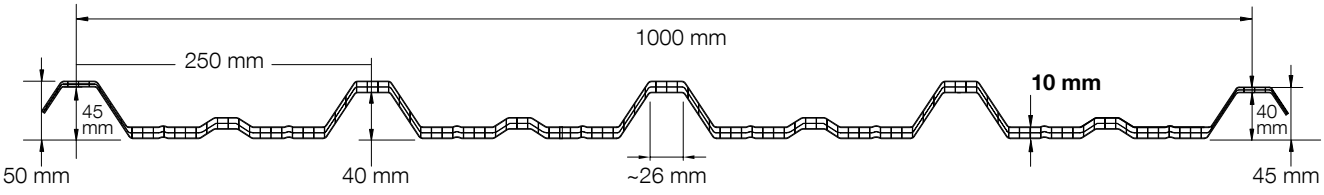
5 corrugations

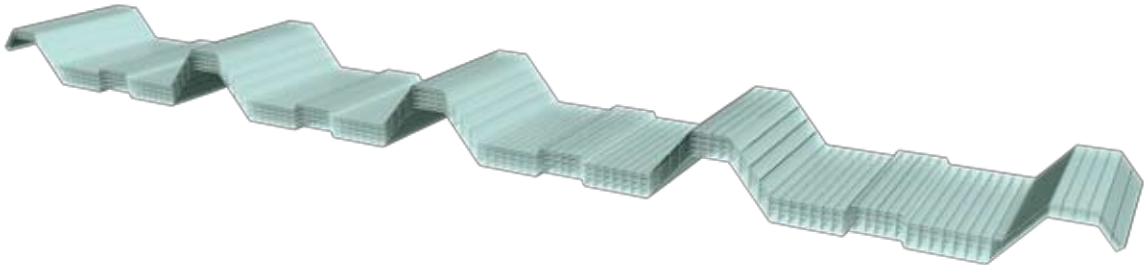


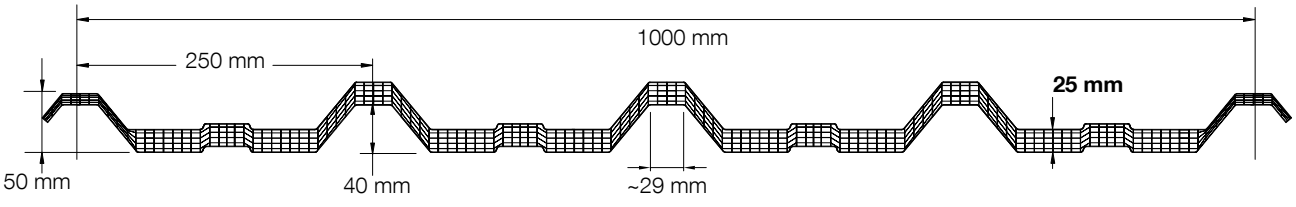


six walls (five chambers)


1000 mm
250 mm
3 mm
43 mm
40 mm
~26 mm


1000 mm
250 mm
10 mm
45 mm
40 mm
50 mm
40 mm
~26 mm
45 mm




1000 mm
250 mm
25 mm
50 mm
40 mm
~29 mm

Technical Data

Characteristics	Unit of measurement	Alfa Roof 40/3	Alfa Roof 40/10	Alfa Roof 40/25
Geometric characteristics				
thickness	mm	3	10	25
structure	type	2 walls (single chamber)	3 walls (twin chamber)	6 walls (five chambers)
width	mm	1000	1000	1000
sheet length	mm	custom•	custom•	custom•
corrugation pitch	mm	250	250	250
corrugation depth	mm	40	40	40
Technical characteristics				
thermal transmittance (U)	W/m^2K	4,2••	2,8••	1,4••
*service temperature range**	°C	- 40 / + 120	- 40 / + 120	- 40 / + 120
thermal expansion	$\frac{mm}{m\,°C}$	0,065	0,065	0,065
light transmission (LT) translucent clear	%	79**	72**	N/A•••
light transmission (LT) translucent opal	%	N/A**	60**	N/A••
UV protection	YES/NO	YES	YES	YES
post-treatment (heat sealing)	YES/NO	YES	YES	YES
*warranty****	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 -*

• *Maximum suggested length: 6 metres*

•• *Value estimated on flat sheet*

** *Values tested in-house*

••• *Ask to our office*

*** *See Koscon Industrial SA warranty terms in detail*

Specifications

Flat roofing and skylights produced with extruded polycarbonate multiwall “Alfa Roof 40” corrugated sheeting.

Curved roofing and skylights produced with extruded polycarbonate multiwall “Alfa Roof 40” corrugated sheeting with 3500 and 6000 mm curve radius.

Thickness: 3 mm, 10 mm e 25 mm

Corrugation pitch 250/40

UV Protection

Heat-sealed ends

Clear or opal colour, with satin effect

U Value: 4,2 W/m² K (thickness 3 mm)

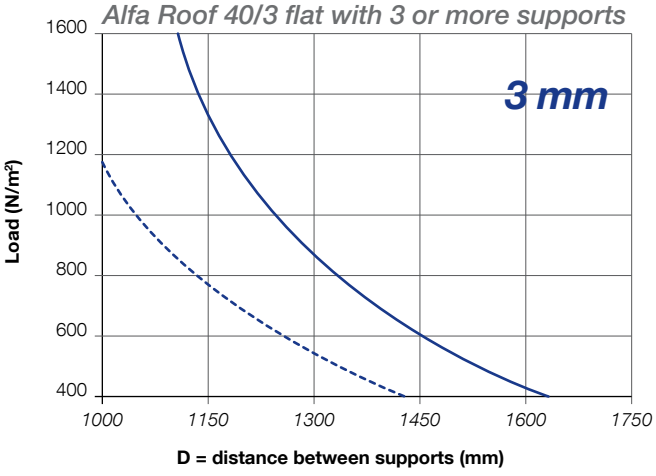
U Value: 2,8 W/m² K (thickness 10 mm)

U Value: 1,4 W/m² K (thickness 25 mm)

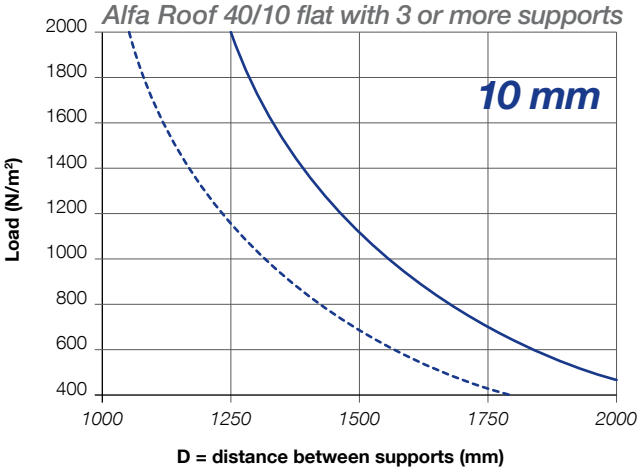
Fire performance: Euro classe B s1 d0

Flat Roof

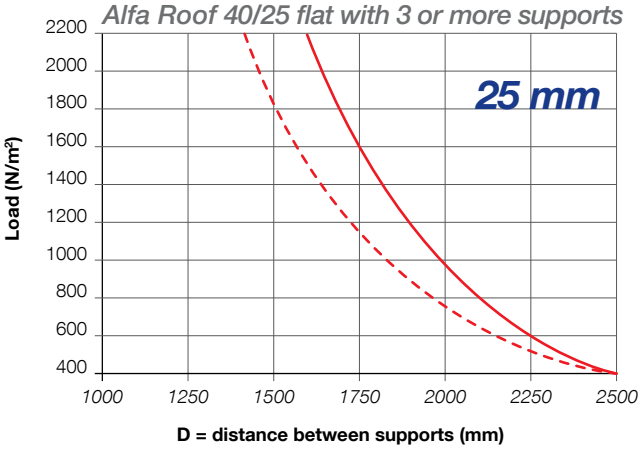
Alfa Roof 40/3 flat with 3 or more supports



Alfa Roof 40/10 flat with 3 or more supports



Alfa Roof 40/25 flat with 3 or more supports

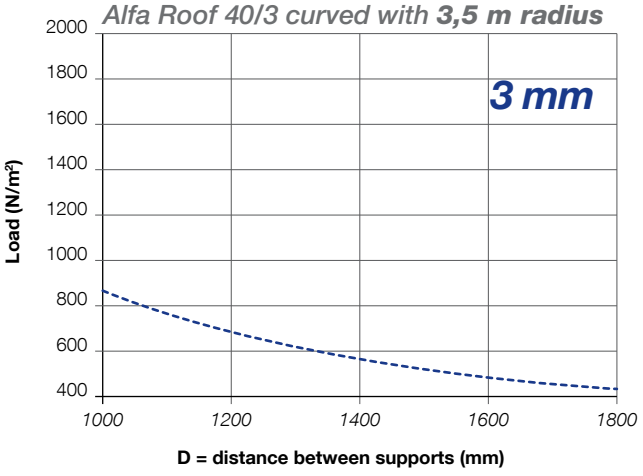


Max camber 50 mm

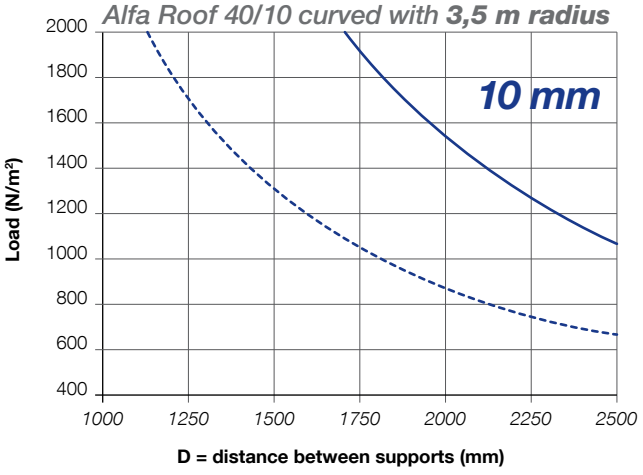
Deflection limit D/50 of span between supports

Curved Roof

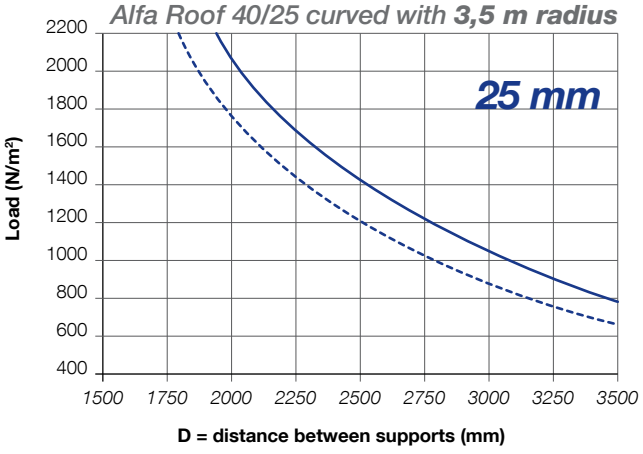
Alfa Roof 40/3 curved with **3,5 m radius**



Alfa Roof 40/10 curved with **3,5 m radius**



Alfa Roof 40/25 curved with **3,5 m radius**



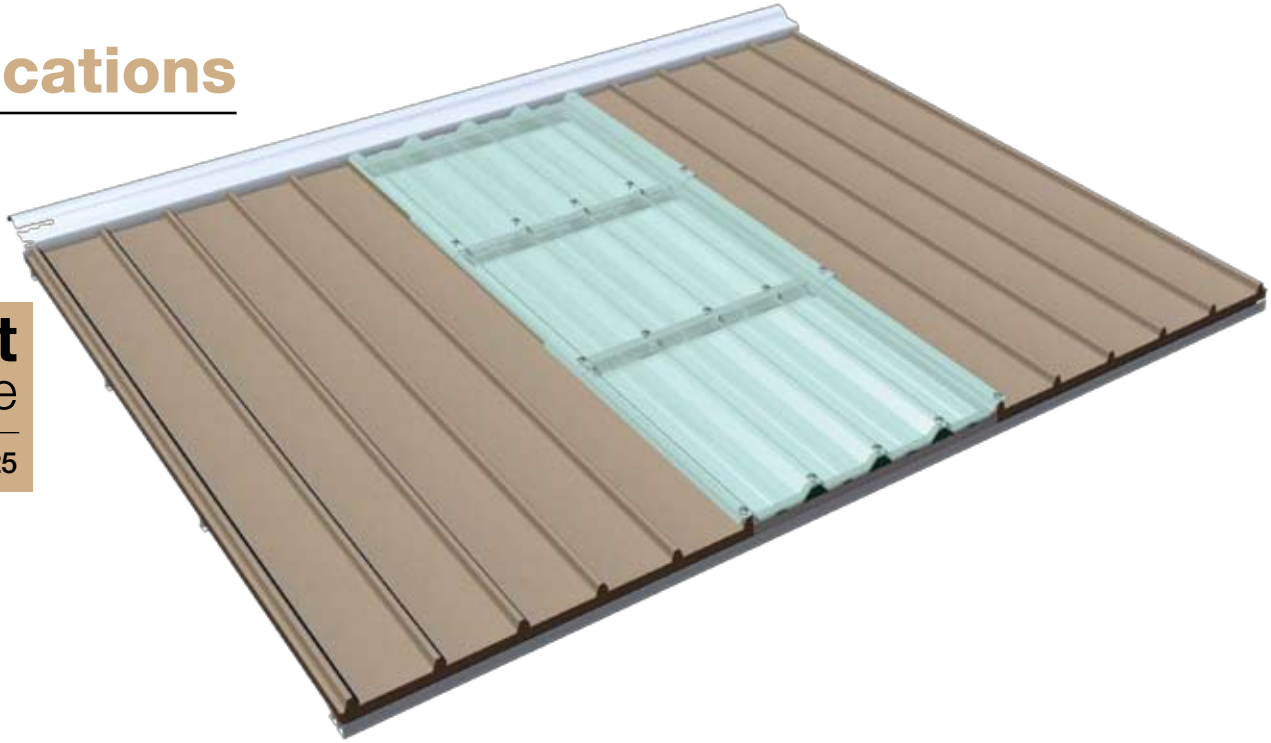
Deflection limit D/50 – single application

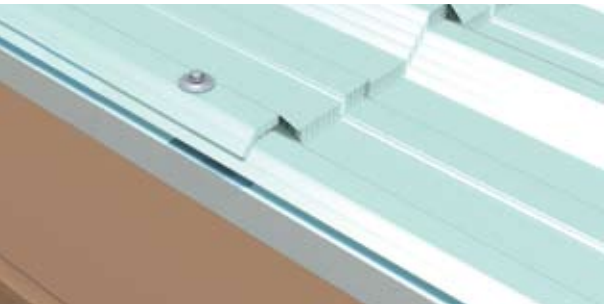
Deflection limit D/50 – continuous application

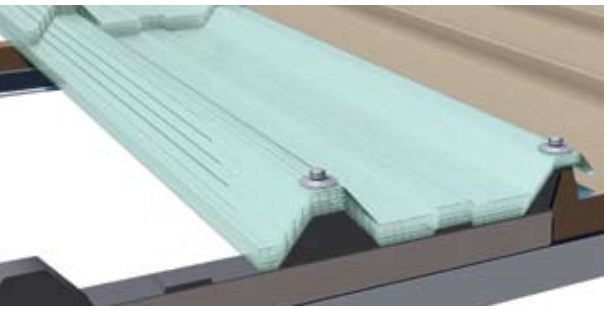
Applications

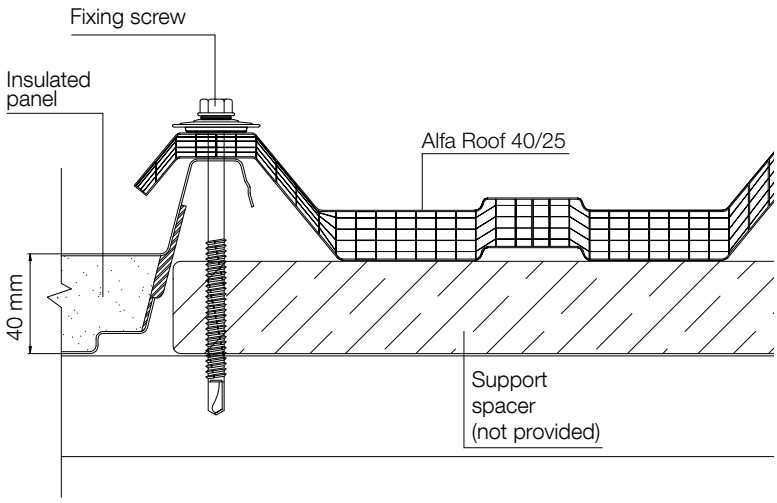
Flat
single

40/3 - 40/10 - 40/25









Detail of fixing and side lap with Alfa Roof 40/25

Accessories

Ridge cap

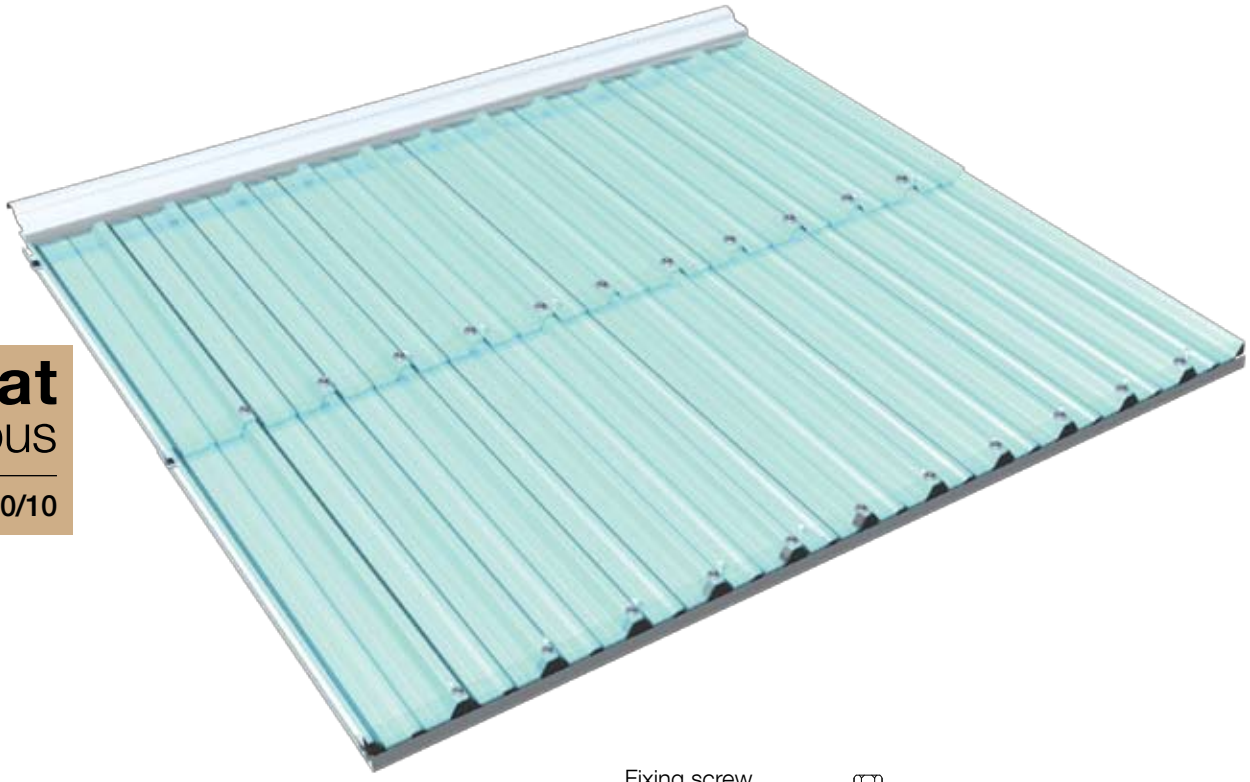
Top and bottom corrugated fillers

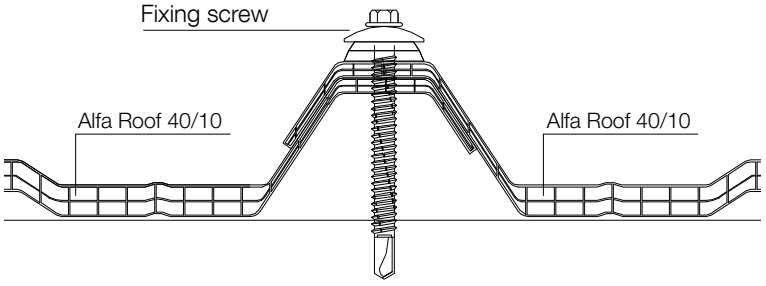
Screw for fixing Alfa Roof 40/25: 6,3 x 100 mm

Screw for fixing Alfa Roof 40/3 e 40/10: 6,3 x 80 mm

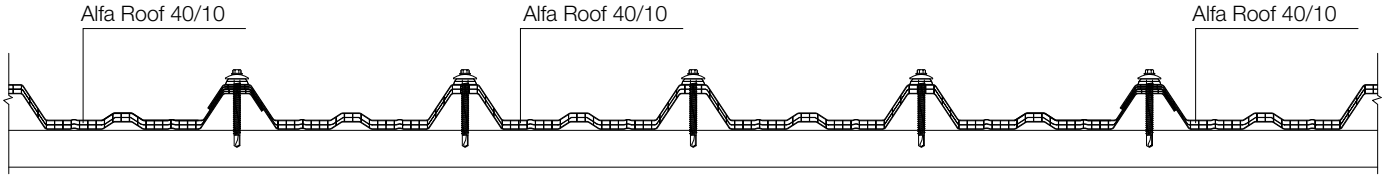
Flat
continuous

40/3 - 40/10





Detail of fixing and side lap with Alfa Roof 40/10



Accessories

Ridge cap

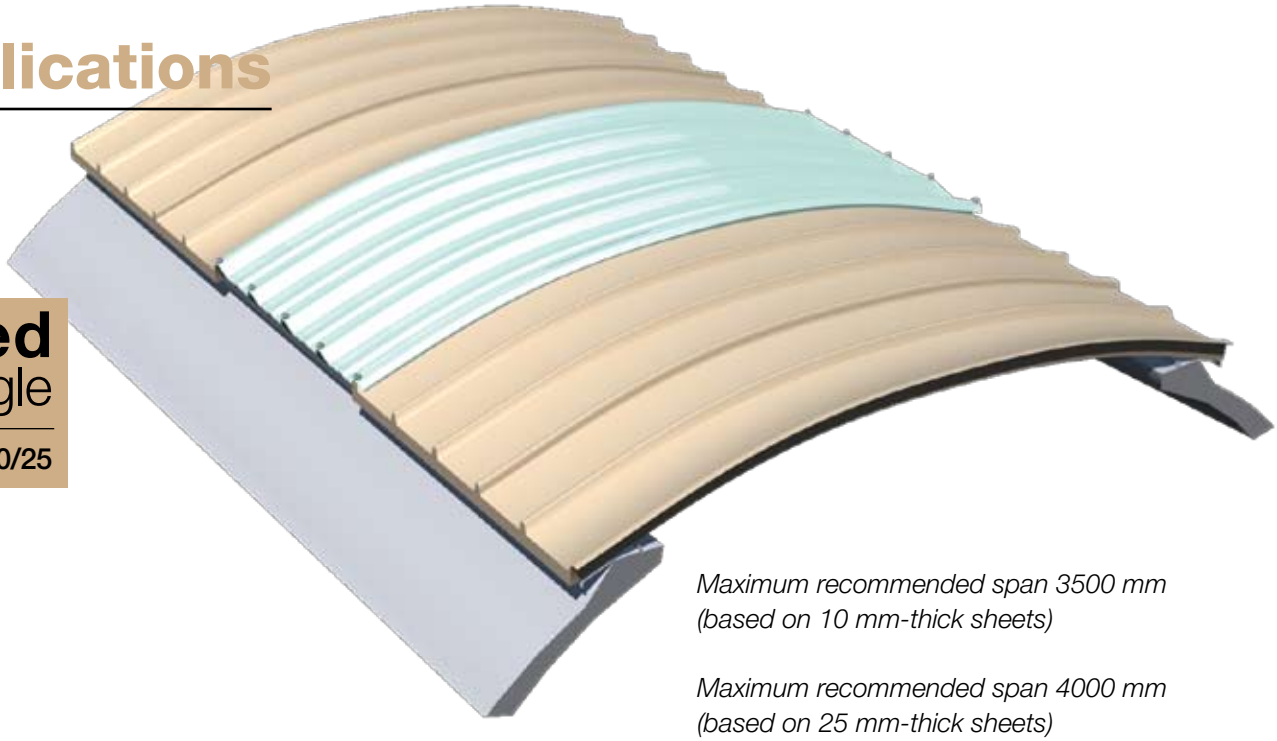
Top and bottom corrugated fillers

Screw for fixing
Alfa Roof 40/3 e 40/10:
6,3 x 80 mm

Applications

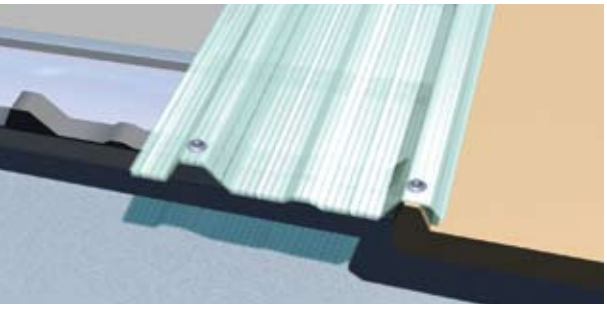
Curved
single

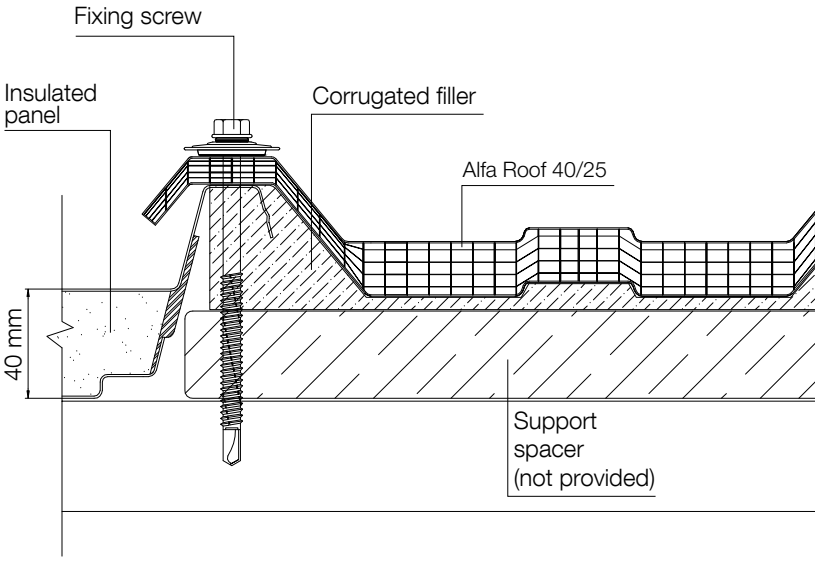
40/10 - 40/25



Maximum recommended span 3500 mm
(based on 10 mm-thick sheets)

Maximum recommended span 4000 mm
(based on 25 mm-thick sheets)





Detail of fixing and side lap with Alfa Roof 40/25

Accessories

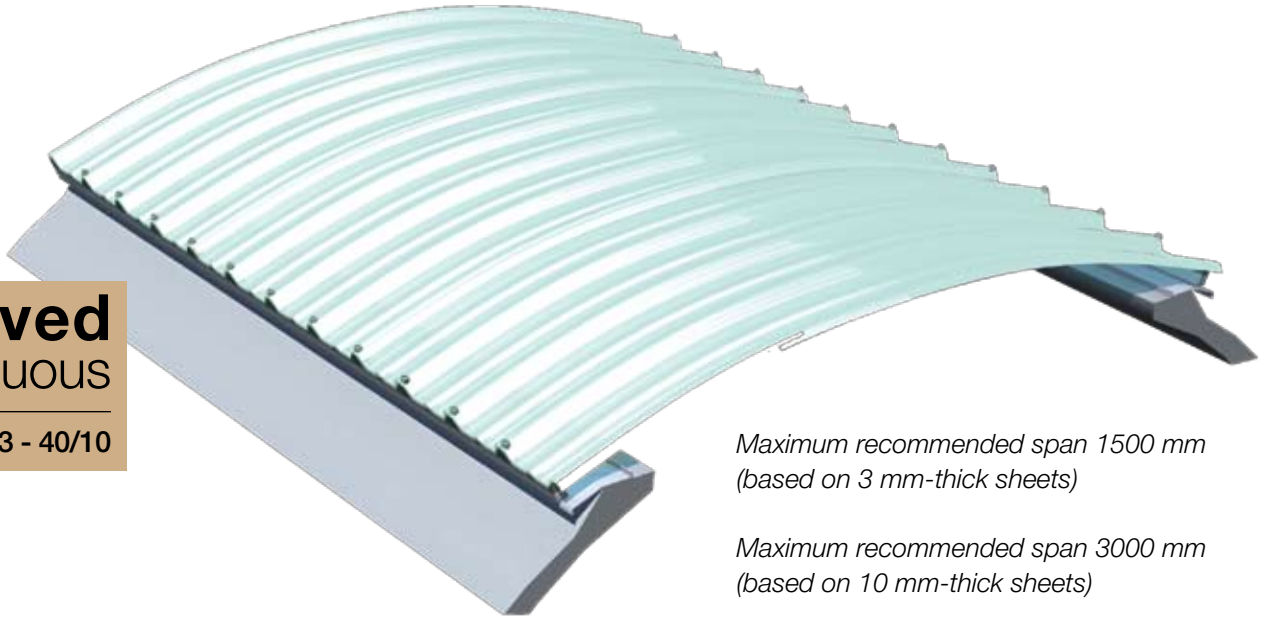
Bottom corrugated filler

Screw for fixing Alfa Roof 40/25: 6,3 x 100 mm

Screw for fixing Alfa Roof 40/10: 6,3 x 80 mm

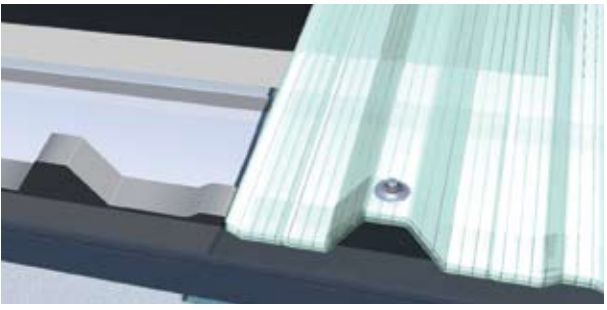
Curved
continuous

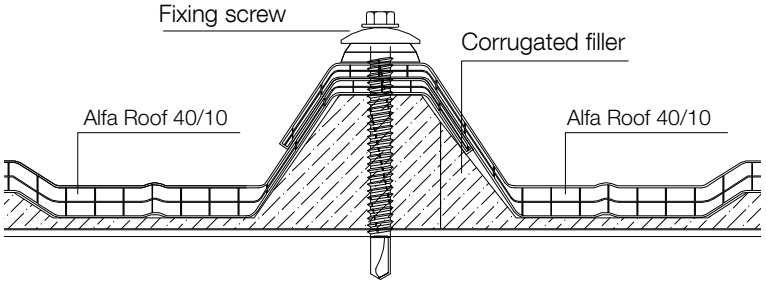
40/3 - 40/10



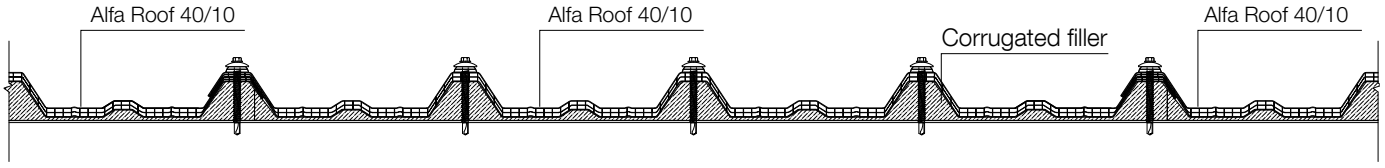
Maximum recommended span 1500 mm (based on 3 mm-thick sheets)

Maximum recommended span 3000 mm (based on 10 mm-thick sheets)





Detail of fixing at kerb with Alfa Roof 40/10



Accessories

Bottom corrugated filler

Screw for fixing
Alfa Roof 40/3 e 40/10:
6,3 x 80 mm