

Alfa Roof Fala

3 mm/twin wall - 6 mm/triple wall

Structural mechanical properties

Alfa Roof Fala sheets provide a perfect balance between weight and load capacity. Structural characteristics are guaranteed by cell design and wall thickness. Specific complementary elements and accessories improve the structural qualities of the system.

Optical properties

Alfa Roof Fala optical properties derive from a careful selection of the best basic raw material. The high-quality production process allows to maintain high luminosity over time.

Thermal and acoustic insulation

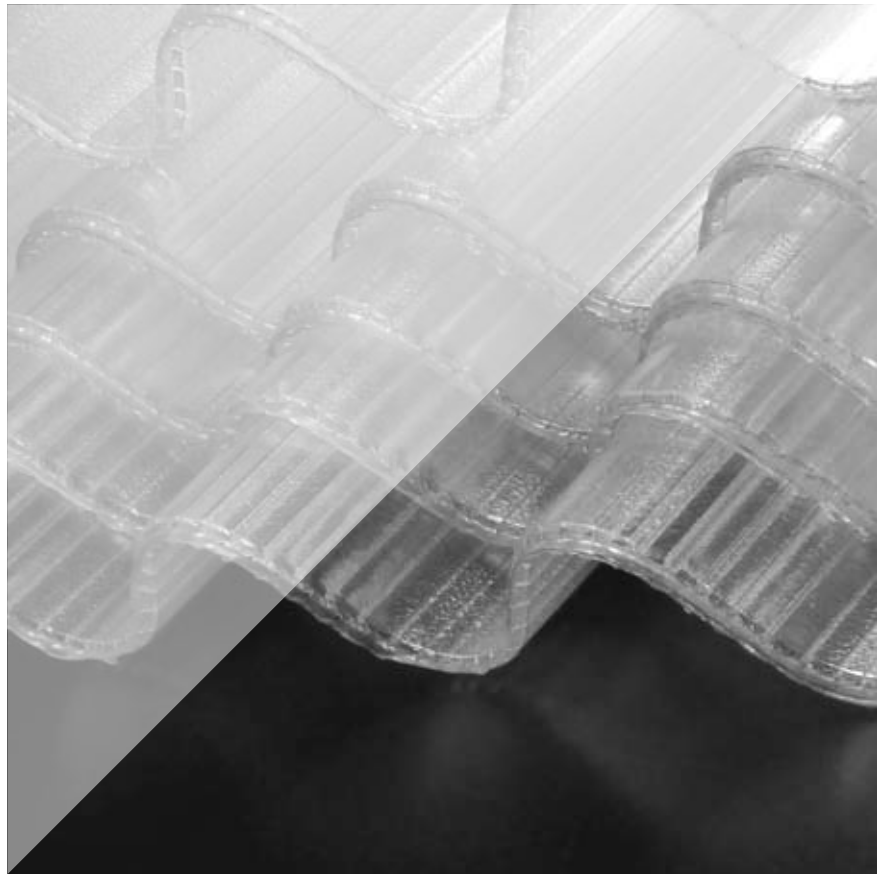
Thermal insulation is an increasingly important characteristic for the building industry. Thanks to twin wall and triple wall structure, thermal insulation values of Alfa Roof Fala sheets are higher than the ones of compact sheets. They also offer improved acoustic insulation, further enhancing comfort.

Fire reaction

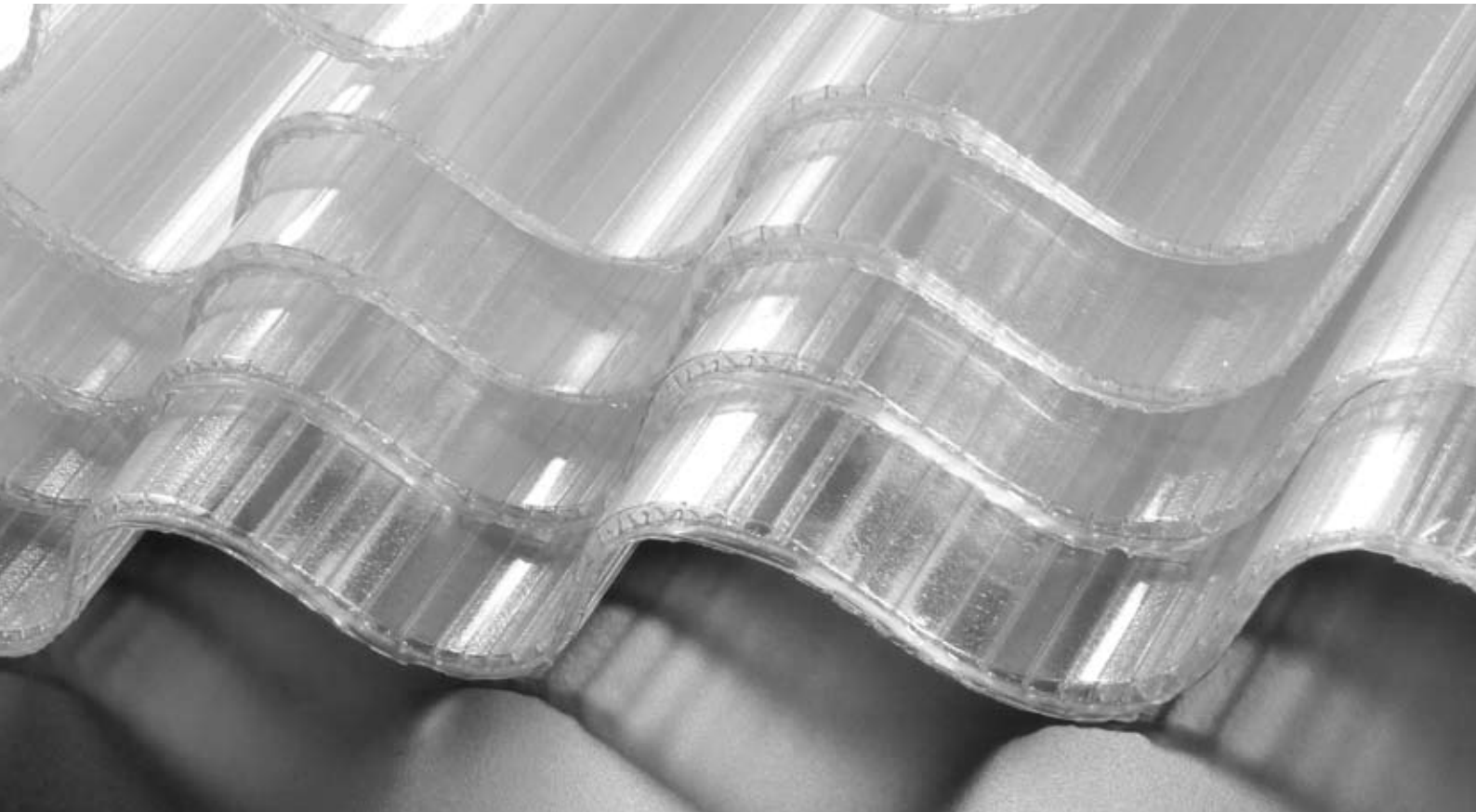
Safety against fire is very important. Alfa Roof Fala sheets have received Euroclass B-s1-d0 certification by independent laboratories. That means they do not accelerate fire growth and do not release toxic gases, in accordance with restrictive building regulations.

Environmental conditions reaction

Alfa Roof Fala sheets are protected against the harmful effects of UV rays. In this way, their optical and mechanical qualities are retained over time. Cell welding using a special heat sealing process, guaranteed from the beginning, minimises the build-up of condensation and impurities inside the cells.



Alfa Roof Fala is a multiwall corrugated sheet, conceived to be used in industrial building for coverings, vertical walls, in street furniture. It has been developed by using the most state-of-the-art and modern co-extrusion technology. Alfa Roof Fala sheets express therefore the best mechanical and physical qualities of polycarbonate, guaranteeing the highest application standards, even for particularly innovative projects.



Alfa Roof Fala products are ideal for applications in combination with fibre-cement sheets, when it is necessary to enable light access from one or more points. It is particularly suitable for covering replacements and rebuilding in gutter/ridge applications, and for the production of curved skylights (partial or continuous application) and large surfaces. Alfa Roof Fala sheets are available in flat and curved options (3500 mm and 6000 mm radius), with optional finishings for particular applications (e.g. lateral corner cutting) on request, and in two different thicknesses: 3 mm twin wall and 6 mm triple wall. Thanks to its technical characteristics, Alfa Roof Fala sheets offer an optimal combination of performance properties, such

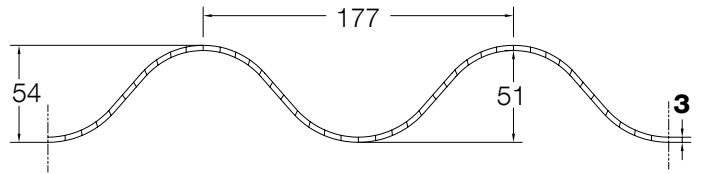
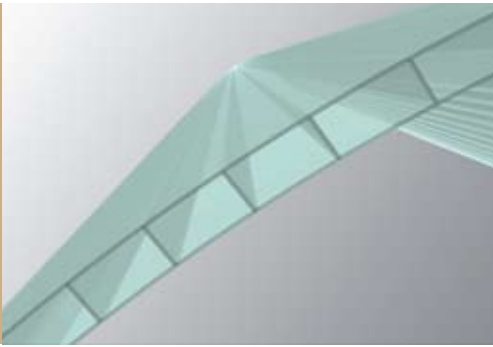
as high load bearing capacity, excellent thermal insulation and good resistance to weather conditions, and they are easy and fast to install. Products are supplied with heat sealed ends in order to reduce the condensation effect and the build-up of dirty material inside the cells. Moreover, they are certified in accordance with the latest EU-regulations specific to this sector. Alfa Roof Fala sheets are laterally and longitudinally overlapped, so that you can create great lengths extending from ridge to gutter. A range of optional accessories are available to accompany Alfa Roof Fala sheets, making their use very easy and versatile.

Technical data



3 mm
(177/51)

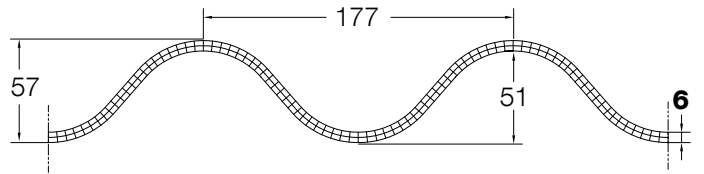
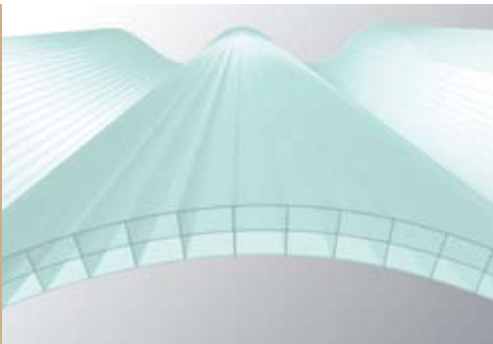
6½ waves
5½ waves



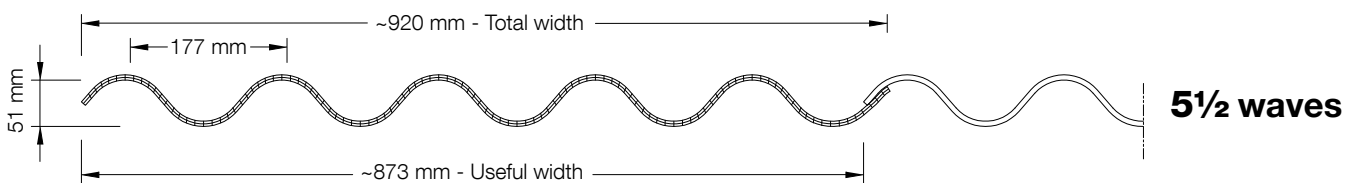
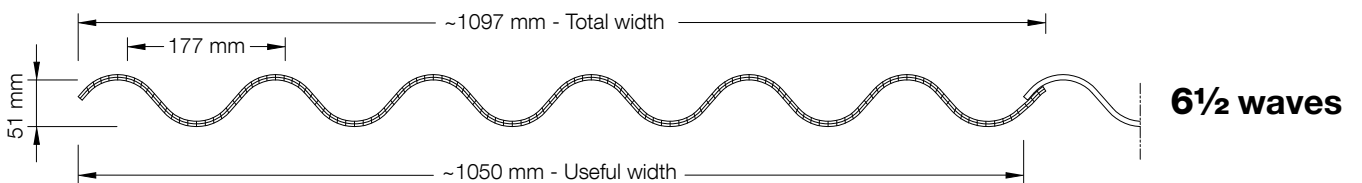
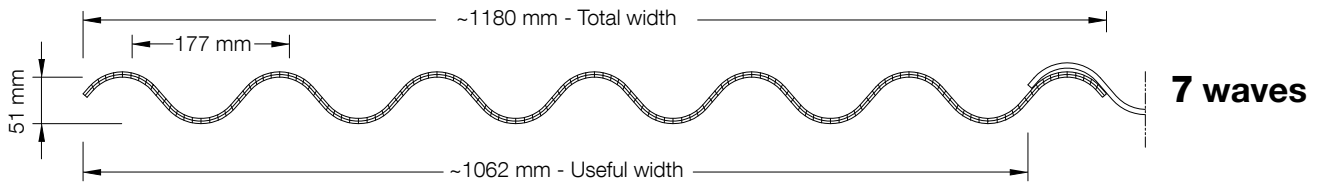
twin wall

6 mm
(177/51)

7 waves
6½ waves
5½ waves



triple wall

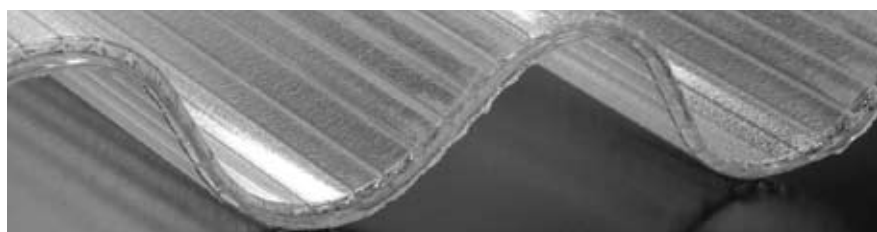


| Characteristics | Unit of measurement | Alfa Roof Fala 3 mm | Alfa Roof Fala 6 mm |
|---|--|------------------------------------|------------------------------------|
| Geometric characteristics | | | |
| sheet thickness | mm | 3 | 6 |
| structure | type | twin wall | triple wall |
| total width | mm | 5½ waves: 920 / useful width 873 | 5½ waves: 920 / useful width 873 |
| | mm | 6½ waves: 1097 / useful width 1050 | 6½ waves: 1097 / useful width 1050 |
| | mm | | 7 waves: 1180 / useful width 1062 |
| sheet length | mm | on size** | on size** |
| pitch | mm | 177 | 177 |
| sheet depth | mm | 51 | 51 |
| Technical characteristics | | | |
| thermal conductivity (U) | W/m²K | 4,2 | 3,3 |
| service temperature range* | °C | - 40 / + 130 | - 40 / + 130 |
| coefficient of linear thermal expansion | $\frac{\text{mm}}{\text{m } ^\circ\text{C}}$ | 0,065 | 0,065 |
| light transmission (LT) clear | % | 79 ^{***} | 75 ^{***} |
| light transmission (LT) opal | % | 69 ^{***} | 65 ^{***} |
| UV protection | Y/N | Y | Y |
| post-treatment (heat sealing) | Y/N | Y | Y |
| finishings (corner cutting) | Y/N | Y (on request) | Y (on request) |
| guarantee | years | 10 | 10 |

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

** Recommended length not over 7 meters.

*** Values tested in our laboratory.



Heat sealed end.



Specifications

Production of flat coverings and skylights with extruded multiwall polycarbonate “Alfa Roof Fala” corrugated sheets.

Production of curved coverings and skylights with extruded multiwall polycarbonate “Alfa Roof Fala” corrugated sheets with 3500 mm and 6000 mm bending radius.

Thickness: 3 mm and 6 mm

Wave pitch: 177/51

UV protection

Colour: clear and opal, with satin effect

Heat sealed ends

U value: 4,2 W/m²K (3 mm thickness)

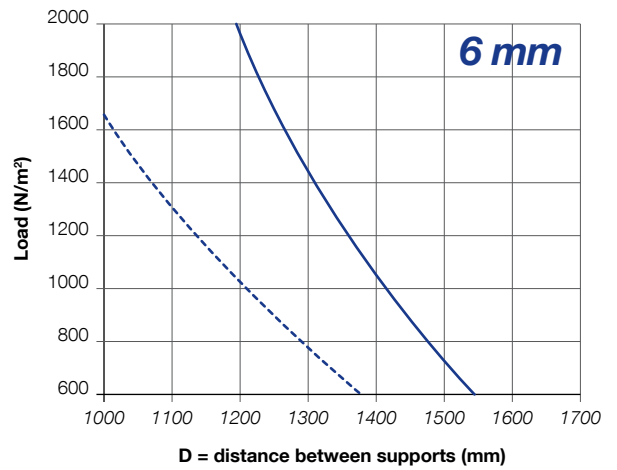
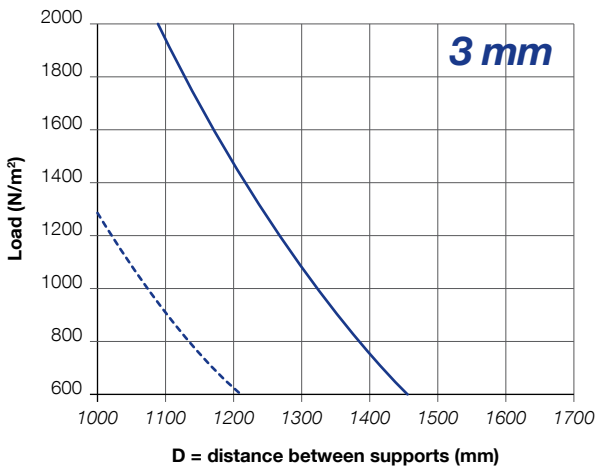
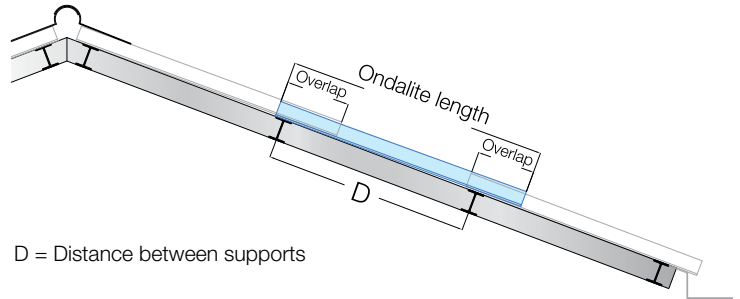
U value: 3,3 W/m²K (6 mm thickness)

Fire reaction: Euroclass B-s1-d0

Flat Covering

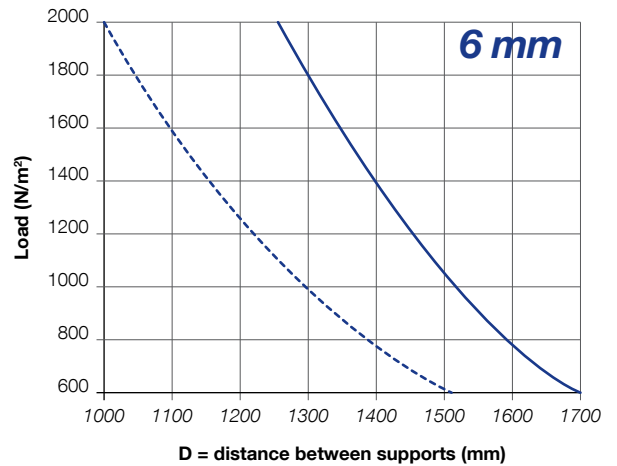
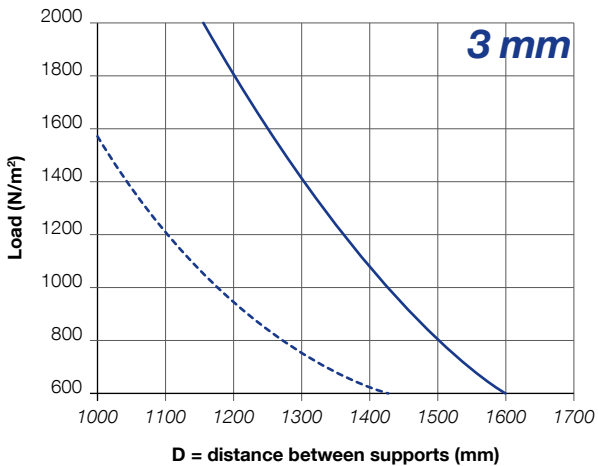
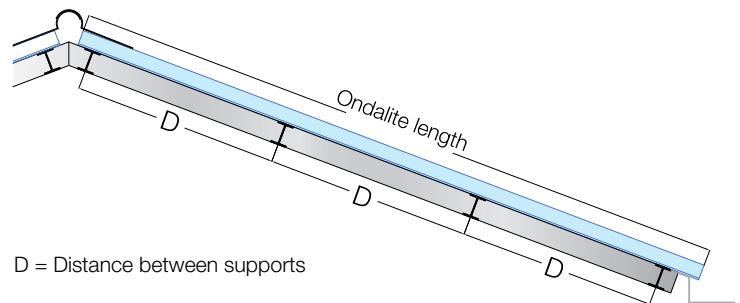
Flat Covering with two supports

- Maximum camber D/50
- Maximum camber 50 mm



Flat Covering with three or more supports

- Maximum camber D/50
- Maximum camber 50 mm



Curved Covering

Curved sheet development with fixed radius 3500 mm (177/51)

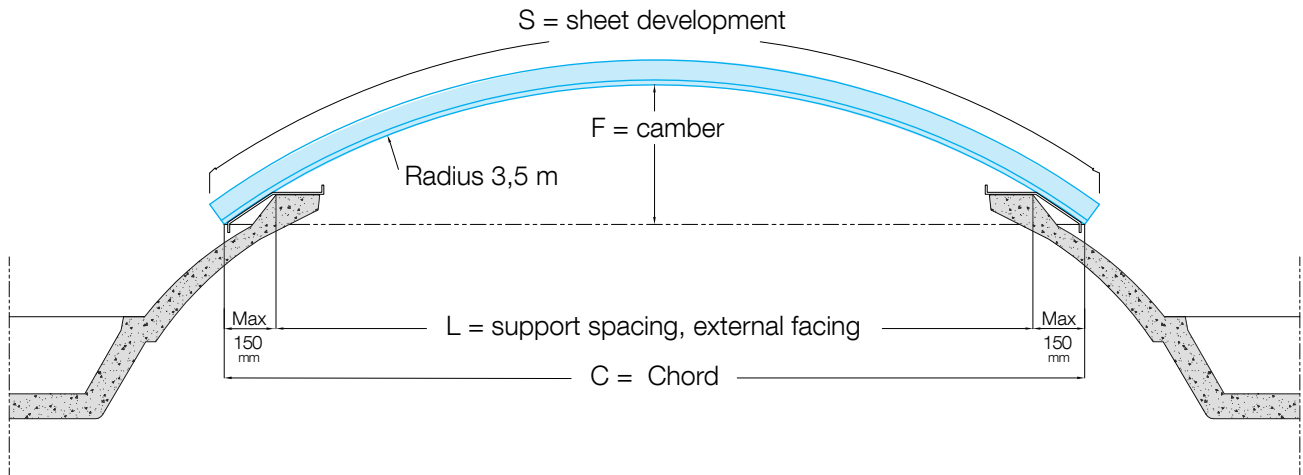
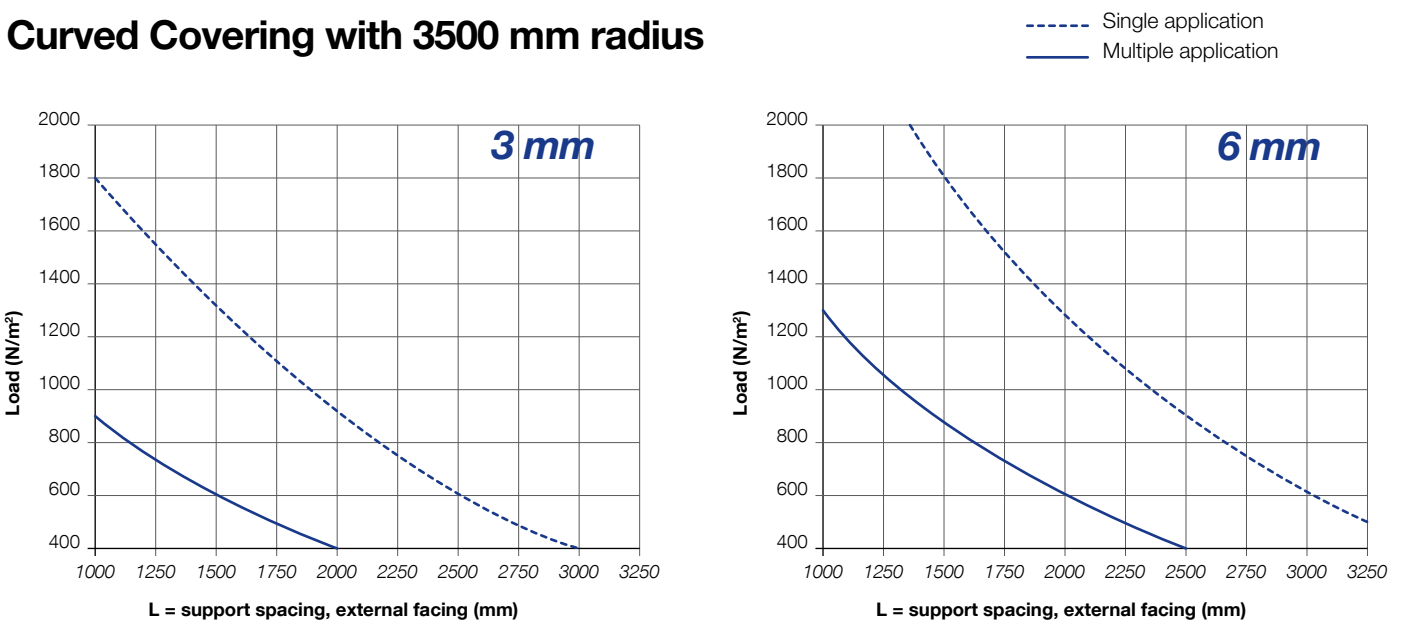


Table: sheet development with 3500 mm fixed radius

| | | | | | | |
|----------------------------------|------|------|------|------|------|------|
| chord (C) | 3530 | 2950 | 2400 | 2100 | 1800 | 1510 |
| sheet development (S) | 3700 | 3050 | 2440 | 2130 | 1830 | 1520 |
| camber (F) | 480 | 325 | 210 | 160 | 120 | 80 |
| central angle (α°) | 60° | 50° | 40° | 35° | 30° | 25° |

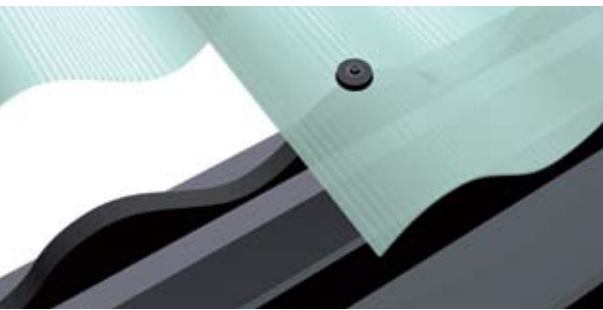
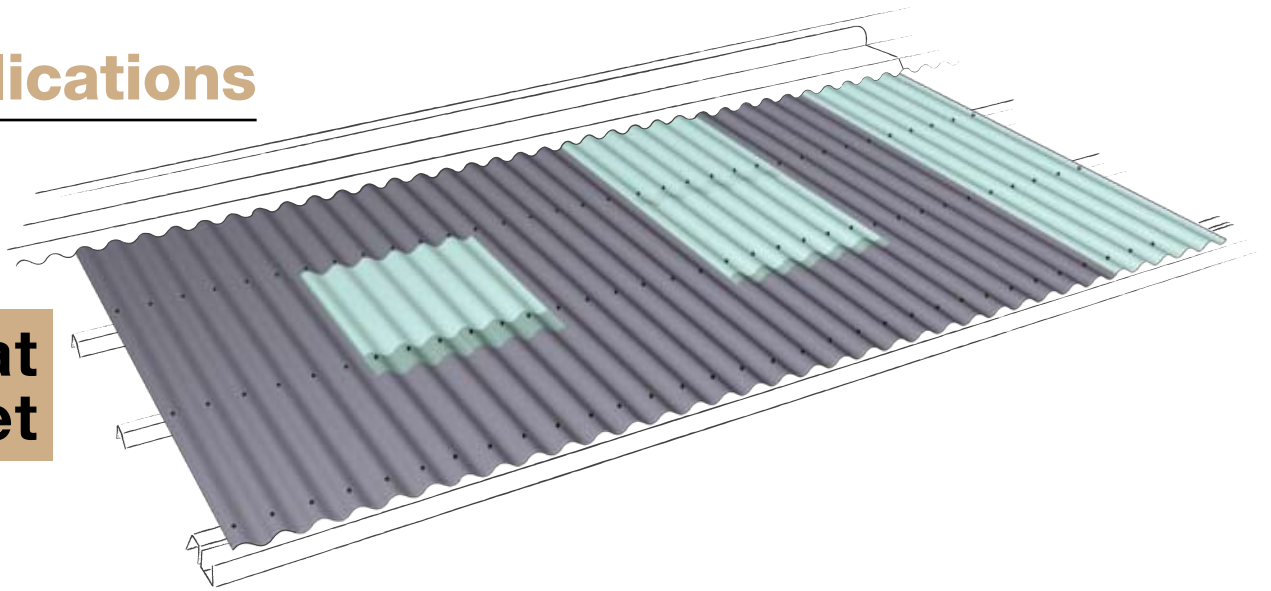
Measurements are expressed in mm and data is purely indicative. Recommended sheet length not over 3700 mm.

Curved Covering with 3500 mm radius

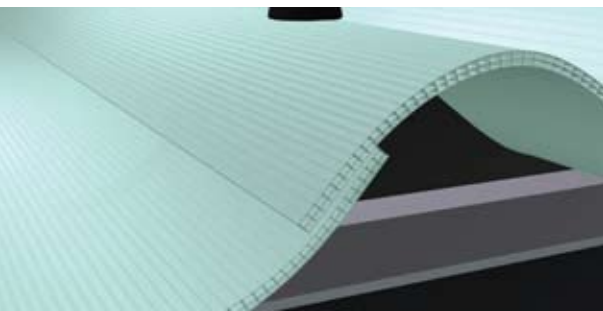


Applications

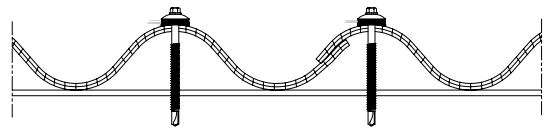
Flat sheet



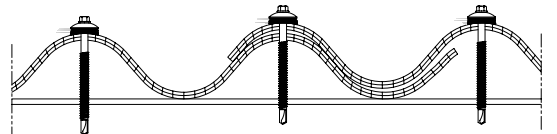
Wave Filler



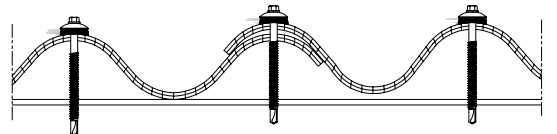
Fixing and lateral overlapping



Standard overlap - 5 1/2 and 6 1/2 waves



Overlap for areas exposed to high winds - 5 1/2 and 6 1/2 waves



Standard overlap - 7 waves

Accessories and finishings



Variable insulated and not insulated steel ridge



Wave Filler



Long screw for fixing on corrugation crown

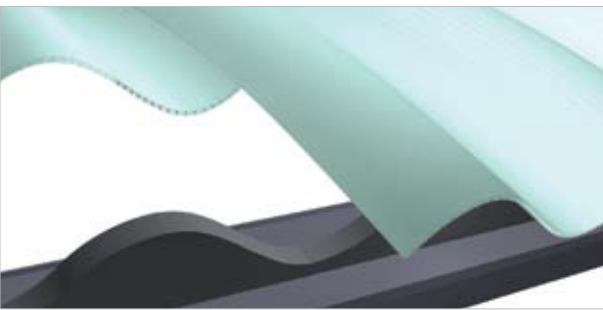
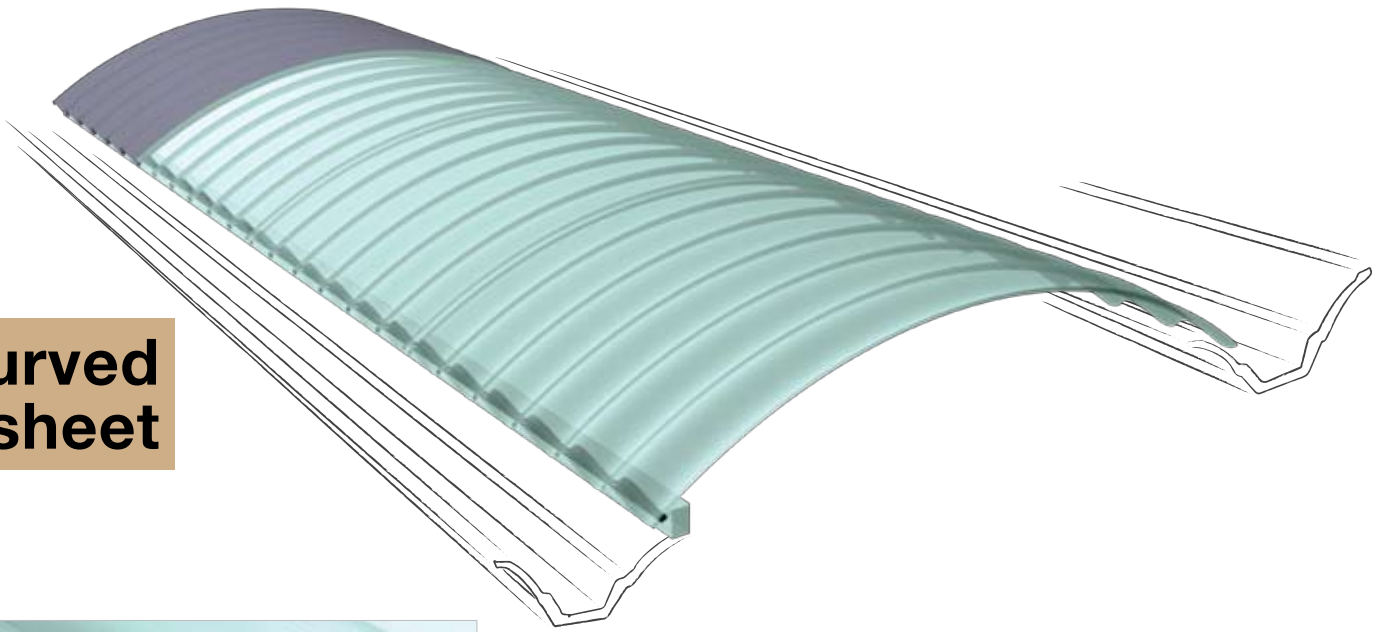


Short screw for fixing on corrugation trough

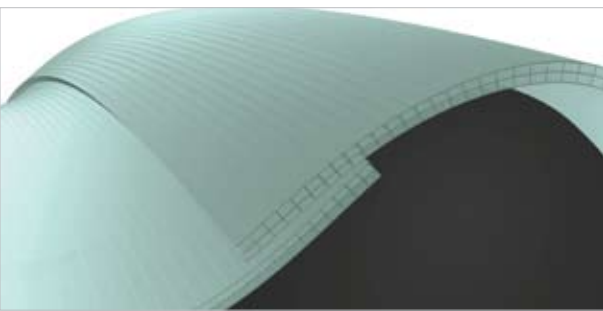
Corner cutting



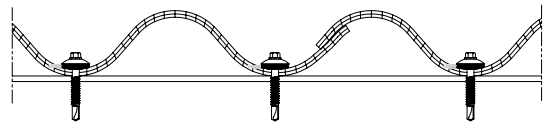
Curved sheet



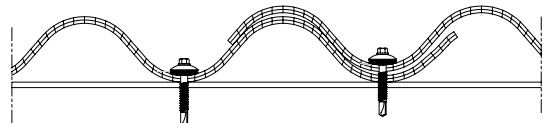
Wave Filler



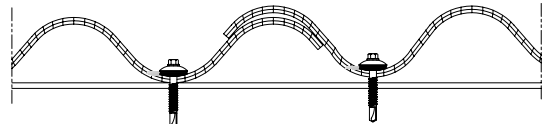
Fixing and lateral overlapping



Standard overlap - 5½ and 6½ waves



Overlap for areas exposed to high winds - 5½ and 6½ waves



Standard overlap - 7 waves

Accessories and finishings



Not insulated GRP Header



Wave Filler



Long screw for fixing on corrugation crown



Short screw for fixing on corrugation trough

Header scheme

