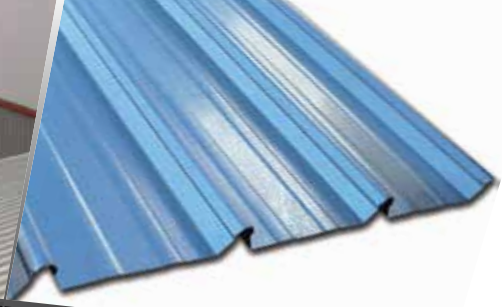
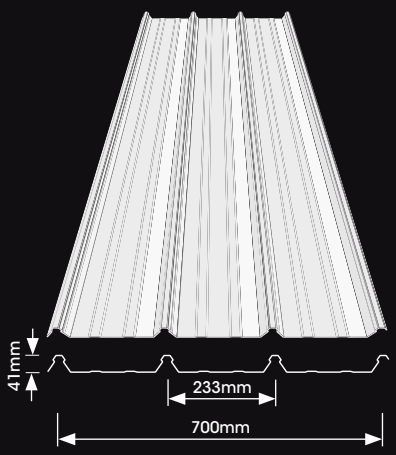
PROLOK 700



ProLok 700 is a concealed fix metal roof sheeting system. Designed for commercial and industrial use at low roof angles. This product consists of 3 wide pans each with 2 stiffening ribs. ProLok 700 also has four ribs, each 41mm high. The two outer ribs differ. One is called the female rib and the other a male rib. The female rib is identical to the two centre ribs but the male rib is slightly smaller to fit and lock inside the female rib. Each rib has shoulders on either side to enable the anchor pillars to grip onto.



Cover width: 700mm
Total width: 750mm
Coil width: 925mm
All dimensions given are nominal

Maximun Pitch 7° on Timer & Steel
Minimum Pitch 3° on timber
Minimum Pitch 2° on Steel

FEATURES

- Water tight, long spanning, wide covering and light weight.
- Deep ribs – stronger and stiffer with better water carrying capacity; roof slope can be as low as 2°.
- Three quarter clip for ease of installation.
- Three fixing points per clip – locating holes with dimples for the wafer head screws, uncompromising strength.
- Optimum Wind Load Resistance – improved security and peace of mind.
- Spring Curving – drape the roof sheet over the large curve with ease.
- Thermal expansion sliding – unmatched ability to slide on the brackets due to thermal expansion, with no abrasive or cutting actions associated.
- SABS tested – found to be one of the strongest profiles on the market.
- Can be spring-curved or draped onto a 36m radius in the convex and 60m in the concave.
- Can be cranked to a minimum radius of 500mm.

APPLICATIONS

ProLok 700 is ideal for commercial and industrial roofing applications. Its excellent strength in spanning and fast erection time makes Pro Roof ProLok 700 economical from a structural and erection point of view.
The fantastic water carrying ability ensures low roof pitch structures that are cost effective for the full life cycle, from design, erection and maintenance. The wide pans of concealed fix profiles are prone to oil canning and is thus not recommended for any application where aesthetics is a consideration.

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STEEL MERCHANTS

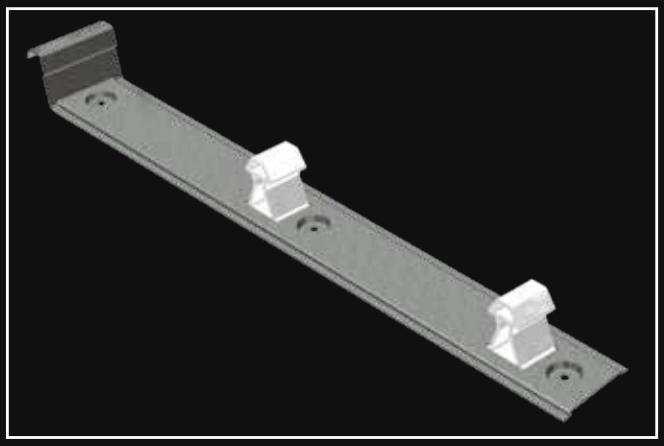
SHEET TOLERANCE

Sheet width: ± 4mm
Sheet length: + 5mm, - 0.0 mm.

MATERIAL OPTIONS	Steel		Aluminium
Thickness (mm)	0.5 0.55 0.58		0.7
Nominal weight/square metre (kg/m²)	5.17 5.7 6.1		3.57
Draped curved roof - min. radius (m)	36 convex 60 concave		36 convex 60 concave
Purlin spacing's for drape curved roof (mm)	1600		1500
Crimp curved - min. radius (mm)	550 convex only		550 convex only
Unsupported overhang (2)	300 350 400		300

Make allowance for thermal expansion or contraction for long length roofs at sheeting ends.

CLIP



Due to the demand for long length sheeting in the commercial market, manufacturers have opted for mobile mills to supply roof sheets that can accommodate any building design. One major concern with long sheet lengths is thermal expansion and contraction. Thermal expansion and contraction causes the sheets to continuously move to and fro on the clips. Normal steel clips have abrasive edges that erode the roof sheet over time. This action results in long thin slits opening on the sides of the ribs, losing all water tightness.
Pro Roof is proud to introduce the new generation of clips to South Africa, a steel base with TECHNYL®C 216C V30 (a type of Nylon 6.6), extruded anchor towers.

- The new clip facilitates thermal expansion and contraction of the roof sheet so that the length is not restricted or damaged.
- Clips are 1 sheet wide and each clip holds 3 ribs of ProLok 700.
- A metal goose-neck design secures the previously laid down sheet mechanically.
- Clips are screw-fixed onto the roof structure so no screw holes pierce the roof sheet.
- Clips can operate at temperatures of -40°C up to 180°C and have a life expectancy similar to that of the roof sheet.

BEFORE INSTALLATION

Before starting installation, please ensure the purlins for your sheeting are aligned and level in that plane. Also that the minimum roof slopes conform to our recommendations and the overhangs do not exceed our recommendations. Cantilevers of sheets from the top and bottom purlins should be at least 75mm to keep maximum holding power.

Turn sheets on the ground before lifting onto the roof so that the installation can be done into the direction of the strongest wind. Starting with the female rib first. Place bundles of sheets over or near firm purlins, not at mid span of a roof.

STEPS FOR INSTALLATION

1. Position the first clips on each purlin. Align using building/gut/string line.
2. Fix the first clip on the purlin so they point in the direction of laying. Ensure the clip is 90 degrees to the edge of the sheet.
3. Drive wafer-head screws through the holes in the clip, into the purlin. Ensure 3 screws per clip.
4. Work along the edge of the gutter/eaves, ensuring it aligns correctly at its ends in relation to the gutter and ridge.
5. Position the first sheet so that it overhangs the desired amount (usually 50mm) to the gutter. It is important to ensure this first sheet is placed square to adjacent edges.
6. Engage the sheet with clips using vertical foot pressure on all the ribs over each clip.
7. Position and fasten the next row of clips, one to each purlin, with the "goose neck" of the clip over the male rib of the previously installed sheet. Take care to roll the clip in by engaging the inside spur first and then roll to engage top section. Be sure the clip is 90° to the edge of the sheet.
8. As before, place the next sheet over its clips ensuring you also engage the edge of the preceding sheet (side lap).
9. Accurately position the sheet so that it overhangs the desired amount into the gutter. It is important that you keep the gutter-end of all sheets in a straight line.
10. Fully engage the two sheets along the overlapping rib. You can do this by walking along the full length of the sheet with one foot in the centre pan of the previous sheet and the other foot applying vertical pressure to the top of the interlocking ribs at regular intervals. It is important that you don't walk in the unsupported pan beside the overlap.
11. Similarly, engage all the clips by applying vertical foot pressure to the top of the other two ribs over each clip.

It is essential that the sheets interlock completely. It is important that your weight is fully on the sheet you are installing. If the final space is less than the full width of a sheet, you can cut a sheet along its length and shorten the clips as needed. Pro Roof can also supply starting and ending clips for high wind load areas.

PRO ROOF
STEEL MERCHANTS

PROLOK 700 LIMIT STATE LOAD / SPAN CAPACITY CHART

(span in mm, distributed serviceability and ultimate loads in kPa)

3. Non-Access Roof →

2. Restricted-Access Roof →

1. Unrestricted-Access Roof →

		1.5kPa				
G550 Steel 0.50mm	End Span	1300	1550	1600	1650	1700
	Internal Span	1400	1600	1650	1700	1800
G550 Steel 0.55mm	End Span	1500	1650	1700	1800	1900
	Internal Span	1600	1700	1800	1900	2000
G300 Steel 0.58mm	End Span	1700	1800	1900	2000	2100
	Internal Span	1800	1900	2000	2100	2200

NOTES

1. In any category, spans above the maximum shown should not be used. Category 1 and 2 maximum spans are based on static point load testing as a guide, and further limited by practical experience of roof performance under dynamic foot traffic loads. Category 3 maximum spans are limited as a guide to achieving satisfactory appearance for wall cladding.
2. Loads are based on one clip per sheet per purlin, and each clip must have 3 fixing screws.
3. Loads given are limited to a maximum of positive 2.5 kPa. If design requirements exceed this limit, contact Pro Roof for specific advice.
4. Polycarbonate – Serviceability limit state loads are not applicable to the Polycarbonate material, as it does not experience permanent deformation.
5. Ultimate loads limited by fastener pull out.

FASTENER

ProLok 700 is clip-fastened to either timber or steel purlins. The use of the appropriate type and length of fastener for clip is vital to the structural integrity of the roof.
Purlin Clip Fastener
Timber 10(4.8mmØ) x 45mm Wafer Head Type17 - Class 3 self drilling screw
Steel 10(4.8mmØ) x 22mm Wafer Head Class 3 self drilling screw
If insulation is used over the purlins, screw length should be increased.
Positive fixing with saddle washers must be used on overhangs larger than 600mm for buildings higher than 10m, or on any part of the roof where wind loads exceed 1.6 kPa.

SAMPLE SPECIFICATION

The roof sheeting shall be double-interlocking concealed-fix "ProLok" profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified galvanized steel complying with ISQ 550. A certificate verifying compliance shall be issued by the manufacturer, "PRO ROOF STEEL MERCHANTS". The profile shall be roll-formed with four ribs at centres not exceeding 233mm and a cover width not exceeding 700mm. When interlocked, the maximum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Pro Roof recommends a starting bracket and an end bracket for large overhangs or high wind load areas.

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