SAFLOK 700
concealed fix roofing

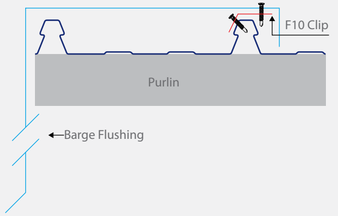
Purlin Spacings

GAUGE	0.4mm	0.5mm	0.6mm
Material	ALUMINIUM-ZINC	ALUMINIUM-ZINC	ALUMINIUM
ROOFS	mm	mm	mm
Single Span	1400	1700	1400
End Span	1600	1900	1500
Internal/Double Span	1800	2100	2000
Cantilever (Unstiffened)	150	150	180
Cantilever (stiffened)	350	300	380
SIDE CLADDING			
Single Span	2 100	2 300	1600
End Span	2 400	2 600	2200
Internal Span	2 600	2 700	2400
Cantilever	300	400	300
Approximate Mass/m²	5.2kg	6.2kg	2.9kg

Installation

Step1. Starting with the female rib first, align first sheet and hold down
Step2. Place saddle washers over the first 3 ribs above the purlins [starting from the female rib side]. Align, and fasten the saddle washers through the rib using an appropriate Fixtite® or Safintra approved fastener.
Step3. Position the next sheet, engaging the female rib firmly over the male rib of the previous sheet. Repeat step 2

NOTE: The bonded washer can only be fixed from the top.



Note: This clip is positively fixed. Care should be taken when detailing industrial length sheeting and flashing due to thermal expansion. MRM recommends the use of a Flashing Slider Clip for very long sheets. Please consult our Technical Department for assistance.

Specialised Fixing Accessories

Polysider Clip

For use with Saflok polycarbonate sheeting. Must be installed with saddle washer. Polycarbonate sheets must be positively fixed – consult our technical department for advice.

Fasteners

Where insulation is to be installed, you may need to increase the length of the fasteners given below, depending on the density and thickness of the insulation. When the fastener is properly tightened:
Into metal: there should be at least three threads protruding past the purling you are fixing to, but the shankguard must not reach that purlin.
Into timber: the fastener must penetrate the timber by the same amount that the recommended fastener would do if there were no insulation.

Cranking

SAFLOK 700 sheets may be cranked and bullnosed but not reverse bullnosed. Minimum radius is 450mm. On – site cranking is available on request.

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Curving

Natural springing occurs at 36m radius in the convex and 60m radius in the concave. It is important to reduce purlin spacings by 20% when spring curving a roof.

Rolling Straight Onto A Roof

It is possible to roll form straight onto a roof using a scaffold ramp. The limitations are the building height and space needed to roll. A departure angle would damage the sheet when leaving the mill and again when bending to settle onto the roof. The sheeting cannot be roll formed onto a building higher than 10m.

Sealed Joints

For sealed joints use fasteners or rivets and neutral – cure silicone sealant branded as suitable for use with AZ steel.

Disclaimer:
. Care has been taken to ensure that the information provided is accurate. MRM does not assume responsibility for inaccuracies or misinterpretations of this data.
. MRM is continuously engaged in product development, please ensure that you have the most recent issue of information from MRM.
. Photographs and illustrations are typical examples of roofing and cladding products and cladding products and applications.

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*Version 2019

Trusted and reliable Roofing Product from Mabati Rolling Mills Limited

MRM
MABATI ROLLING MILLS

A member of the SAFAL GROUP

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Product Description & Features

Concealed-fix roofing, also referred to as secret fix, is designed for very low pitched roofs. Because clips under the sheet hold it down, the sheet is not punctured with fasteners, and remains completely watertight even at a very low slope. The securing clips are pre-fixed into the purlins and the sheet is mechanically snapped onto the clip

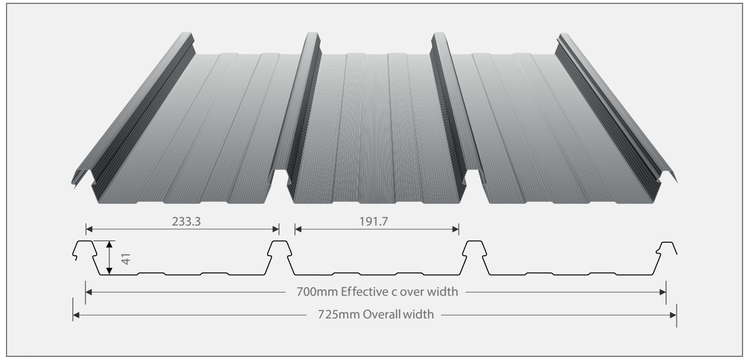
A concealed fix sheet can also expand and contract over the clips as the temperature changes, this system is ideal for long spans on industrial, commercial and retail buildings.

The Saflok 700® concealed fix roofing system is an interlocking trapezoidal rib profile that can be rolled on site in lengths of up to 120metres

Saflok 700® may be rolled in coating of an 55% aluminium-zinc protective alloy on a carbon steel base, (bare or colour coated) or Aluminium (Mill Finish or G4 Colortech). On high slope roofs, the aesthetics of Saflok may be affected by occasional oil canning in the pans. This becomes visually apparent on slopes greater than 5 degrees, as the roof material becomes increasingly visible. It does not affect the structural integrity of the sheet in any way, and MRM will not entertain claims made for all canning.

Saflok 700® can be curved or bullnosed to a minimum internal radius of 450mm-500mm. Reverse cranking is not possible.

Further information available on request.



Saflok 700 Clip

The fully interlocking SAFLOK 700 clip incorporates two anchors to clasp the two inner ribs and a dual action component to positively hold down the male-female joint. Stiffener ribs on 1mm baseplate and formidable strength, specifically over the goose-neck. The clip's male hooks allow for full width engagement on the profile's female goose-neck grooves.

The clips have 4 fastening points along their length for stability, particularly over the blanket insulation.
The geometry of the anchor unit is engineer- designed for optimal performance under high wind load and foot traffic. The entire clip is manufactured from 1mm high-tensile GI or AZ coated steel for strength and compatibility with sheeting.

Sample Specification

MRM 0.50mm thick SAFLOK 700 Colorplus ® AZ150 interlocking roof sheeting fixed to steel internal purlins at 2000mm, and ridge/eaves purlins at 1700mm centres using SAFLOK 700 clips which must be screw fixed to steel purlins with Fixtite ® or Safintra approved wafer head self-tapping screws. The sheeting will be a double interlocking concealed fix SAFLOK 700 profile as manufactured by MRM, roll formed in continuous lengths from certified G550 steel or aluminium 3004 H14. The profile shall be roll formed with 4ribs and centres not exceeding 233mm and a cover width not exceeding 700mm. The male rib is to include spurs to ensure a double interlocking action with adjacent sheets. The minimum sheet depth will be 41mm. Two stiffening ribs are incorporated in each pan. We do not recommend using Saflok on a pitch exceeding 5 degrees due to possibility of oil canning.

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Saflok 700 clips are calculated at 330g per clip – require approximately 1.5 clips per m²

Span tables are for SAFLOK 700 with light foot traffic only. Span tables are based on 1.5Kn downward point load, and1.6kPa upward pressure. The span tables are maximum recommended spans are based on buildings up to 10m high for a basic design wind speed of 28m/s, Terrain Category

Note: It is important to reduce purlin spacings by 20% when spring curving a roof.

Lengths & Roof Pitch

SAFLOK 700 can be ordered in any practical length as per customer requirements. On site rolling is recommended for length in excess of 13metres. The minimum roof pitch when using SAFLOK is 2º on steel and 3º on wood.

Drainage Table

DRAINAGE TABLE RAINFALL INTENSITY MM/HOUR	ROOF SLOPE 2º	3º	5º	8º	10º
250	75	90			
300	65	75	95		
400	50	55	70	80	90
500	40	45	55	65	70

Maximum roof run for footsteps and rainfall intensities shown HIGH WIND LOAD INSTALLATION DETAILING (HIGH WIND ZONES AND COASTAL WID BELTS)

The installation process for using the High Wind Load System (HWLS) is a pierced fix method. The High Wind Load System is recommended for terrain categories A & B, (For reference on terrain categories, please refer to the Safal Group Design and installation Manual). Note that the HWLS is not a concealed fix system, and is therefore recommended only for the perimeter and/or overhang areas of the building. Buildings taller than 10m would also require special design attention and the use of the HWLS.