



# Craft-Lock® sheeting







# Craft-Lock®\_

## Sheeting

The Craft-Lock® roof sheeting system is the result of years of research and wide experience in the roofing industry. The development of the Craft-Lock® concealed fix system was aimed at eliminating disadvantages inherent in many of the existing types of roof profiles. The result is a unique long span profiled sheet that can be erected by general labour with the minimum of tools, to ensure a leak proof roof due to its hidden fasteners (concealed fix). This eliminates potential leakage problems and enhances the aesthetics.

## WHY CHOOSE Craft-Lock®?

#### • Unrestricted thermal movement

The unique fixing method allows for expansion and contraction of the sheeting without subjecting the fasteners to fatigue or loosening.

#### • Double capillary action break

The double capillary break design of the interlocking mechanism of adjoining sheets ensures the prevention of ingress of rainwater by capillary action.

#### Ease of erection

As set out in the "Erection Procedures" Craft-Lock® sheeting can be erected easily by using general labour, requiring the minimum tools. The narrow width of sheets simplifies handling and erection procedures.

## Long span capacity

Owing to the depth and rigidity of the profile, long spans between purlins are possible (technical data and test reports are available on request).

#### Water-carrying capacity

The trough-depth of 41 mm enhances the water-carrying capacity of the sheet and makes low roof pitches possible.

#### Security

As fasteners are concealed, roof sheets cannot easily be removed from outside.

#### Economy

The narrow width of the sheet reduces wastage or the necessity for cutting of sheets, thus saving on material and labour.

#### Profiling

Craft-Lock® sheets can be profiled on site to reduce transport costs and to eliminate transport damage. Wet storage corrosion resulting from extended unprotected storage of stacks of profiled sheets on the building site is therefore prevented.

#### Long lengths

As is the case with other roll profiled sheets, the maximum length of sheets is limited by transport criteria. When profiled on site, virtually any lengths can be produced.

#### Re-usable

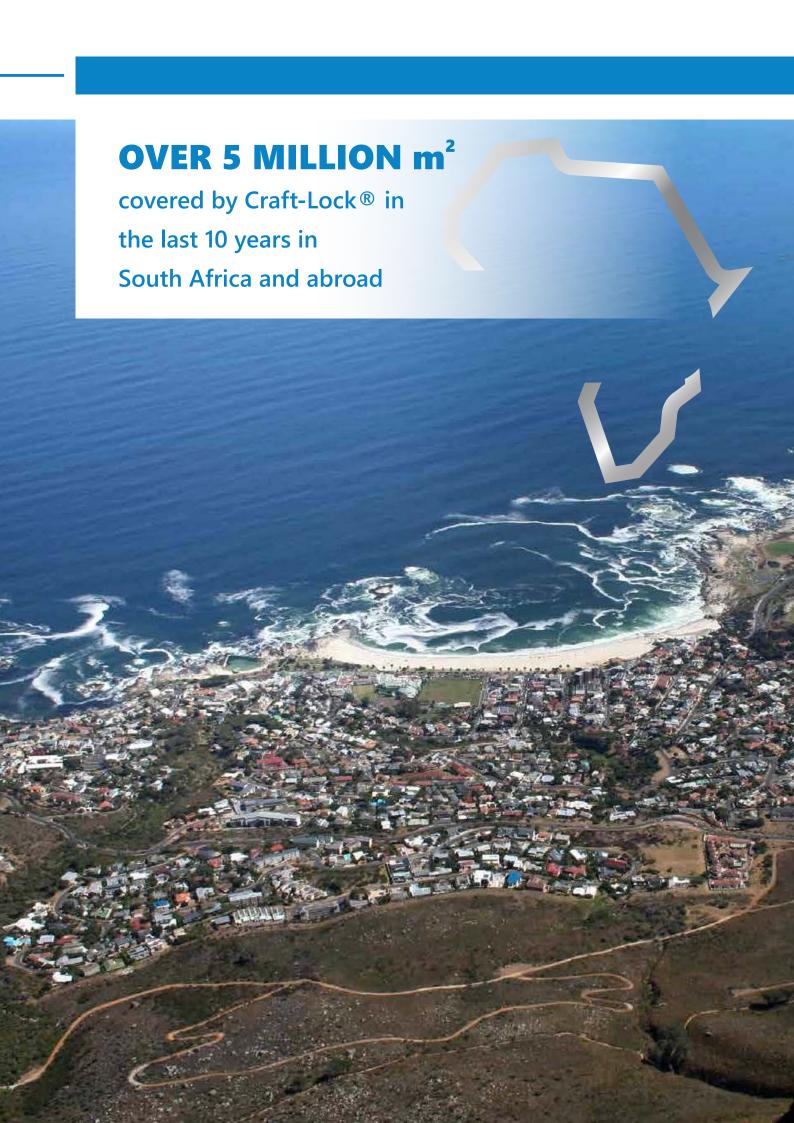
Another unique advantage of Craft-Lock® sheets is that they can be re-used. If a building is to be demolished, the hold-down clips can be removed to recover the roof sheets. Re-use is possible as there are no holes in the sheets.

#### • Corrosion performance

As the side lap contact area of the profile is minimal and well ventilated, trapped moisture cannot remain and the danger of overlap corrosion is eliminated.

#### Complementary accessories

All accessories such as closures, poly-closures, ridge capping, fasteners, sealant, etc. necessary to complete the most intricate roofing project can be ordered from the suppliers.





## PHOTOVOLTAIC CONNECTION

With Craft-Lock®

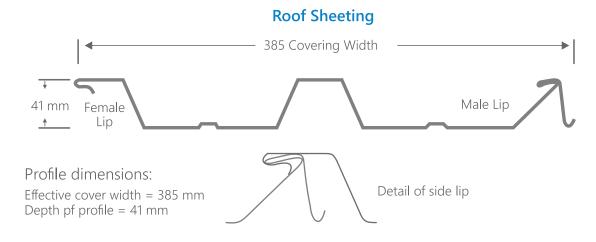
The perfect symbiosis...Made possible with the new Craft-Lock® clamp

Because of its constructional design, the Craft-Lock® roof profile offers an optimal basis for the installation of Photovoltaic systems. The modules can be attached to the profile panels by means of specially developed Craft-Lock® clamps.

As a result, no holes are drilled into the material and thus no drilling chips are left behind on the roof shell which would accelerate corrosion and cause leaks, a significant advantage over most normal roof profiles. An extremely rational installation is thus made possible. Adding to this concept, it is furthermore possible to attach a rail system to the Craft-Lock® clamps.

#### **TECHNICAL DATA**

Craft-Lock® concealed fix roof sheeting



## Resistance against negative loading (suction)

Negative wind loads for roofs generally do not exceed 1.5 kN/m<sup>2</sup>. Analysis shows that the Craft-Lock® interlocking fixing system can readily resist negative loads in excess of 3 kN/m<sup>2</sup>.

KIBO Afrique reserves the right to amend profile dimensions without prior notification or consultation. Please consult with your sales contact for relevant and updated information.



# **Craft-Lock® PROFILE PROPERTIES**

The following table reflects the profile properties of Craft-Lock® sheets, based on a theoretical analysis. Actual loading tests have been conducted to determine practical load span data. (Test reports are available on request)

- 1) ISQ 300 conforms to SABS 0162/2
- 2) Values based on concentrated positive or negative loads of 1,5 kN/m² and allow for deflections of 1/200.



## Minimum pitch

1°

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## Water carrying capacity

The deep trough of the Craft-Lock® profile maximises the water carrying capacity

Trough section area/sheet = 10 760 mm<sup>2</sup>

Trough section area/m width = 28 330 mm<sup>2</sup>

Volume of water/m<sup>2</sup> of sheet = 28,33 litres (without covering ribs)

### MASS MAXIMUM PURLIN SPACING

Material	per linear m kg/m	per m² kg/m²	End span m	Continuous spans m
Steel Sheet				
0.58 mm Z275	2.896	7.26	1.500	2.000
0.55 mm AZ150	2.652	6.88	1.500	2.000
Aluminium				
0.8 mm	1.300	3.41	1.000	1.800
Copper Sheet				
0.6 mm	3.229	8.50	0.800	1.200





# **AVAILABILITY**

# Craft-Lock® concealed fix roof sheeting can be ordered in the following materials:

Material	Coating	Thickness	Material Grade
Galvanised	Z200	0.58 mm	ISQ300
	Z275		
Chromadek®	Z200	0.58 mm	ISQ300
	Z275		
Zincalume®	AZ150	0.55 mm	G300
	AZ200		
Clean Colorbond®	AZ150	0.55 mm	G300
	AZ200		
	AM150		
ZincAL®	AZ100, AZ150,	0.55 mm	G300
	AZ200		G275
ColorPlus®	AZ100, AZ150,	0.55 mm	G300
	AZ200		G275
Copper Sheet		0.60 mm	
(Special Order)			
Polycarbonate		1.20 mm	
Translucent Sheets			

### **PRODUCT SPECIFICATION**

Craft-Lock® concealed fix roof sheeting with a male/female interlocking mechanism forming a double capillary action break manufactured from:

(1) 0.58 mm thick (2) ISQ 300, G300, steel with (3) (Chromadek®/Colorbond®/ColorPlus®/ZincAl®/ Zincalume®), in (colour), finish with a (4) Z 200, Z275, AZ100, AZ150, AZ200, AM150 (5) Galvanized coating, AZ, AM Coating.

- (1) Refers to the chosen thickness.
- (2) Refers to the correct material grade (refer to above table).
- (3) Refers to the desired finish (refer to above table).
- (4) Refers to the desired protective coating mass (refer to above table).
- (5) Refers to the desired protective coating (refer to above table).



# THE TENDERER MUST ADHERE, AND OR AGREE TO:

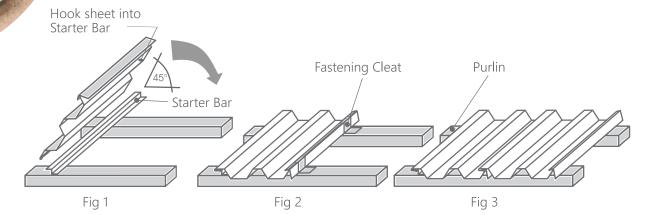
- All required flashing and trimmings to be designed in consultation with the supplier and manufactured from the same specified material to prevent any discrepancies during the issue of the Workmanship Guarantee to be issued by the supplier.
- Product and Workmanship Warrantee will only apply to accredited installers of Craft-Lock® concealed fix roof sheeting.
- Installation to be in accordance with the manufacturers approved and prescribed installation methods. The manufacturer to conduct inspections at regular intervals and submit advisory reports to the architect and structural engineer.
- A material certificate confirming material grade, thickness before painting, paint system and coating must be presented upon request.
- Roof sheets will be fixed to every purlin (Maximum 2000 mm purlin spacing on continuous spans and 1500 mm on end spans) by means of a concealed fastening bracket directly over up to 100 mm thick "blanket type" insulation, installed "over the purlin" according to supplier specifications.
- Brackets will be manufactured from Galvanised steel and will be fixed to steel purlins with one 25-50 mm long full thread self–drilling screw or with two, T 15 serrated nails to timber purlins.





## **INSTALLATION INSTRUCTIONS**

Thanks to the robust design of the Craft-Lock® profile, high quality roofing can be erected by general labour. To ensure satisfactory results, the following basic guidelines should be followed:



## Step one

To start, place the steel Z-shaped starter bar (optional) at one end of the roof (starting), perpendicular to the purlins, as shown in Fig.1.

If necessary, starter bars may overlap, provided that a lap length of 200 mm is allowed. Two fasteners should be used for fixing to each purlin; coated or s.s screws (50 mm min.) or galvanized nails (75 mm min) should be used for timber purlins, or one coated or s.s self-tapping screw (5 mm diameter x 12 mm long) for steel purlins. No rivets should be allowed.

## Step two

Ensure that profile is concave to achieve pre-stress on the centre rib. Hook the first roof sheet over the starter bar (as shown in Fig. 1) by holding at an angle of 45° and applying stress in the direction of the arrow, while lowering the sheet to ensure a snug fit.

Fix the first sheet in position by hooking the fastening bracket over the male lip and fix it to the purlin with two fasteners (as described above for starter bar).

(Fig. 2) Subsequent sheets are fixed in the same way, using the fixed sheets as platform.

(Fig. 3) Apply even horizontal stress on each sheet before fixing brackets, to ensure proper nesting of the overlap joint.

Note: Hurricane screw. It is recommended that a stainless steel self-tapping screw be used on the overlap of each sheet, at the lower end (eaves) of the sheet. Trough to be bent up 30 mm on the top end of the roof sheet (head wall) or ridge to form a stop end. At the bottom end of the sheet to be bent down by 20 mm to form a drip (eave).



### EAVE AND RIDGE CLOSURE \_\_\_\_\_

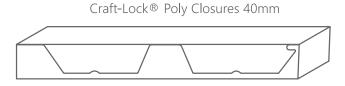
These are standard punched fixtures fitted to a roof laid to the right or to the left and must be ordered as such. The 45° fillet is used in a hipped roof or similar situation.

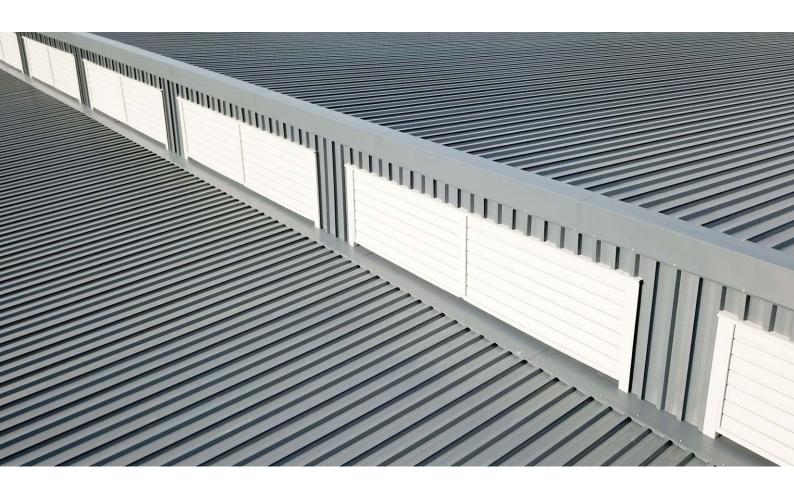






Craft-Lock® Left-Hand (L/H) 45° Hip Closures







## CONCEALED FIX MOBILE UNIT \_\_\_\_\_

KIBO Afrique Steel have several mobile mills that can be deployed to sites all over Africa for on-site roll forming.

# Benefits of on-site concealed fixed roll forming:

- On-site rolling of concealed fixed roofing eliminates transport limitations of long sheets, as sheets can now be profiled on-site to the exact lengths required and thus eliminates the need for end lapping. We have rolled sheets up to 150 m long each!
- It minimises costs.
- Shorten lead times on your project.







# **ENQUIRIES**

For any enquiries, questions or recommendations, please call: +27 78 803 3970 or visit www.kiboafrique.com

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