

GRS Zip-Tek 440

Global Roofing Solutions Zip-Tek 440™

ROOFING LIKE NO OTHER

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www.globalroofs.co.za
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GRS Zip-Tek 440



GLOBAL ROOFING SOLUTIONS

BrownBuilt | HH Robertson



Typical Specification

Materials

The roofing shall be Zip-Tek 440 profile roll-formed in continuous lengths in one of the materials in the table below. Zip-Tek 440 is obtained from Global Roofing Solutions.

| Material | Steel | Colour One Side | Colour Two Side |
|------------------------|---------|-----------------|-----------------|
| Galvanised Z275 | ISQ 300 | _____ | _____ |
| Chromadek® Z200 | | ✓ | Special |
| Zincalume® AZ150 | G300 | _____ | _____ |
| Clean COLORBOND™ AZ150 | | ✓ | Special |
| ZincAL® AZ150 | G300 | _____ | _____ |
| COLORPLUS® AZ150 | | ✓ | Special |
| Aluminium 3004 | 3004 | _____ | _____ |
| Color-Tech G4 3004 | | ✓ | Special |

The Profile

The profile is roll-formed from certified material complying with (select from column in above table). The profile shall have a male and female upstand with a height of 68mm which will provide a capillary brake. The nett effective cover width will be 440mm. The male head shall be smaller than the female head. The pan shall incorporate transverse stiffener ribs.

Assembly

It is recommended that Zip-Tek 440 sheeting should be laid by an approved contractor in strict accordance with manufacturer's specifications.

Flashings

Stop endings must be formed at the apex and the pan turned down at the eaves to form a drip. The roof sheeting shall be closed as necessary with purpose-made flashings of a design approved by the supplier. These flashings shall be notched around ribs where necessary. All these operations must be performed with special tools available from the supplier.

Site Handling

Zip-Tek 440 sheets should be suitably supported clear of the ground under well ventilated cover, away from risk of damage by building operations, contact with cement, dust, lime and abrasive dust, until required to be installed.

Cleaning Up

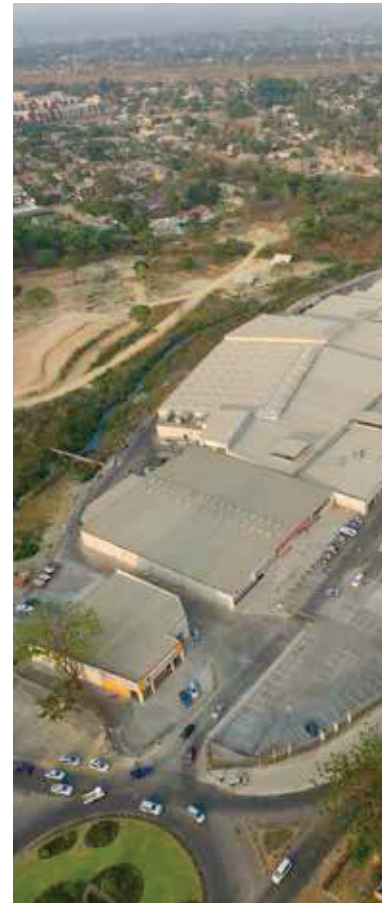
The complete roof must be kept clean and free of any swarf and debris.

Quality Assurance

The manufacturer shall be assessed and certified as complying with ISO 9001:2015 Quality Management System.

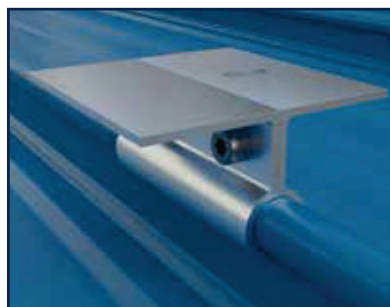
Solar Clamp

Please refer to GRS PV Clamp brochure.

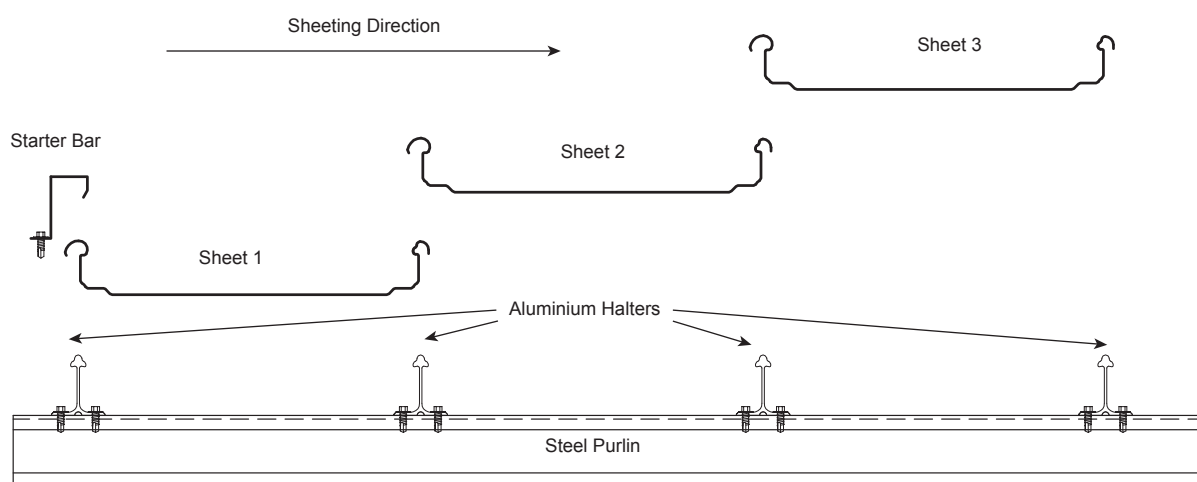


Note

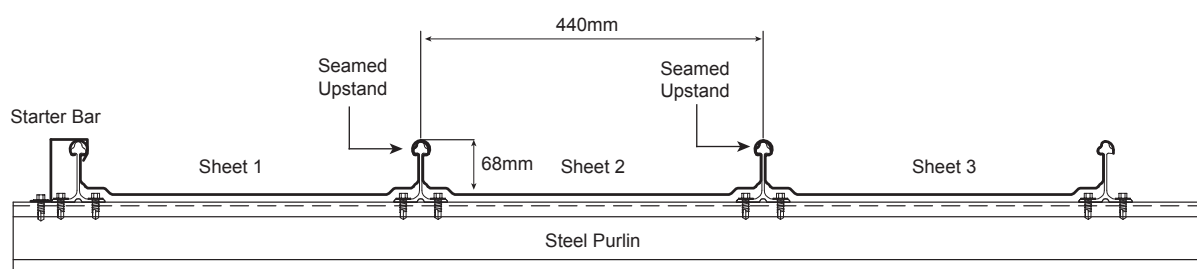
Please note: Zip-Tek 440 is only available for exports, SADC and African countries.



The Concealed Fixing Concept



INSTALLATION PROCEDURE



Fasteners

The recommended fasteners for fixing the Zip-Tek 440 halters to steel or timber purlins are as follows:

Steel - (1mm - 4.5mm thick)

No. 12 - 14 x 25mm long self-drilling hex flange head screw No. 3 drill point.

Aluminium

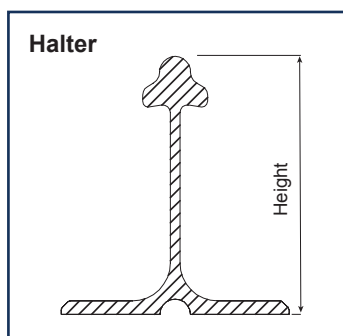
It is recommended that stainless steel fasteners be used in conjunction with aluminium sheeting.

Timber

No. 12 - 11 x 50mm long self-drilling hex flange head screw Type 17 drill point.

Insulation

Please contact GRS for insulation specific fixing details.



| Halter Size | |
|-------------|-------|
| Height: | 110mm |
| | 75mm |

Note

Fasteners must be selected to match the life expectancy of the roofing and cladding material. The coating class for fasteners, complying with SANS 1273, should be used in conjunction with all roofing and cladding material.

Additional Applications

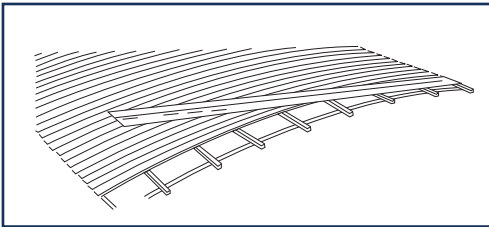
Sheet Lengths

Zip-Tek 440 is only milled on site. Sheet lengths to be rolled in long lengths without laps.

End lapping negates the concealed fix concept for water tightness. End lapping, due to corrosion, reduces the life expectancy of the roof.

Springing

Zip-Tek 440 can be sprung to a minimum radius of 55m (convex or concave), subject to gauge and cover width.



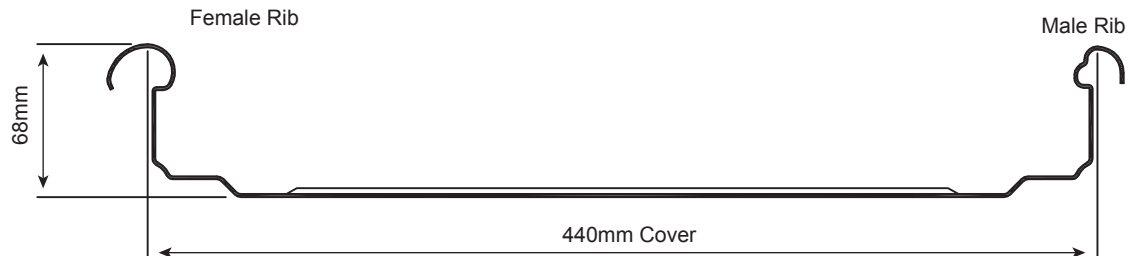
Note

Springing of Zip-Tek 440 can result in stresses in the material, resulting in oil canning.

Care must be taken in checking the structure line of the curve carefully, plus ensuring that all halters are in line. Any discrepancy will affect the line of halters, resulting in poor aesthetics.



Profile: Zip-Tek 440™



Load Span Table

The recommended purlin support centres are based on the following design criteria and obtained through testing:

| Ultimate Superimposed Distributed Load | | Ultimate Uplift Load |
|--|------------------------|------------------------|
| ROOFS | 1.50 kN/m ² | 1.60 kN/m ² |
| WALLS | 0.75 kN/m ² | |

Drainage Table

Maximum roof run (in metres) for roof slopes and rainfall intensities shown. These figures are based on unrestricted, free flow of water.

| Zip-Tek 440 Roof Slope | Rainfall Intensity mm/h | | | | |
|------------------------|-------------------------|------|------|------|------|
| | 200 | 250 | 300 | 400 | 500 |
| 1° | 358m | 287m | 239m | 179m | 143m |
| 2° | 480m | 384m | 320m | 239m | 191m |
| 3° | | 468m | 389m | 292m | 234m |
| 5° | | | 506m | 379m | 303m |
| 7,5° | | | | 467m | 373m |
| 10° | | | | | 434m |

Note

At 1° slope, all roof supports must be in the same plane as slight variations can result in a zero or negative fall. This may even occur after completion of the building over time. Where possible it is wise to design for a minimum of 2° slope to ensure a positive fall.

| Maximum Allowable Support Spacings | | | | |
|---|--------|--------|--------|------------------------------------|
| Type of Span | 0.53mm | 0.55mm | 0.58mm | 0.8mm Aluminium |
| Roofs | | | | |
| End Span | 1.900m | 1.900m | 2.100m | 2.200m |
| Internal Span | 2.300m | 2.300m | 2.500m | 2.500m |
| Cantilever unstiffened | - | - | - | - |
| Cantilever (stiffened) | 0.180m | 0.180m | 0.260m | 0.180m |
| Nominal Mass kg/m ² | 5.8 | 6.0 | 6.63 | 3.13 |
| Available in Galvanised, Zinalume®, Zinal® and Chromadek®, Colorbond™, Colorplus® | | | | Mill Finish, Colour-Tech G4 & PVDF |

- Spans don't apply to natural sprung sheets. Consult GRS Technical Department.
- Spans for timber purlins to be in accordance with SANS 10400

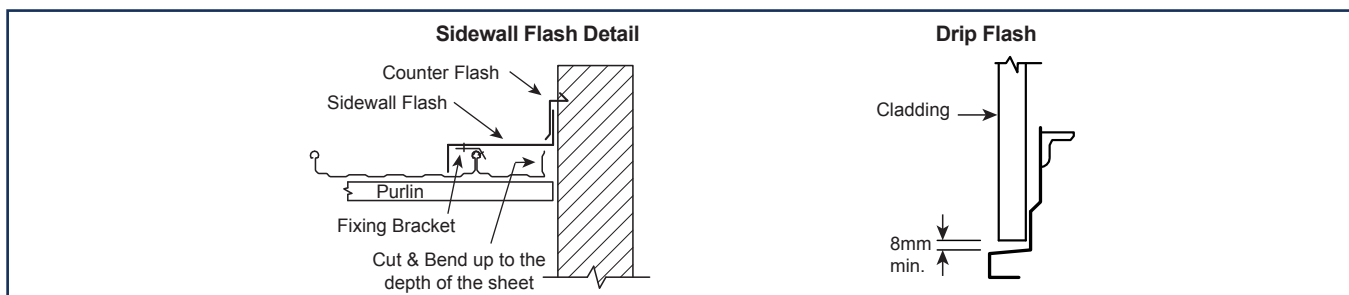
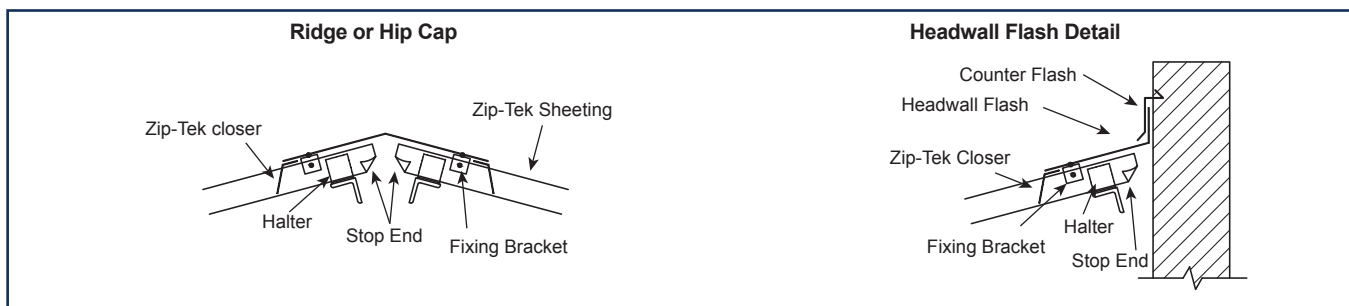
Popular Flashings

Note

Bespoke flashings are generally supplied for Zip-Tek 440. Consult GRS technical department.

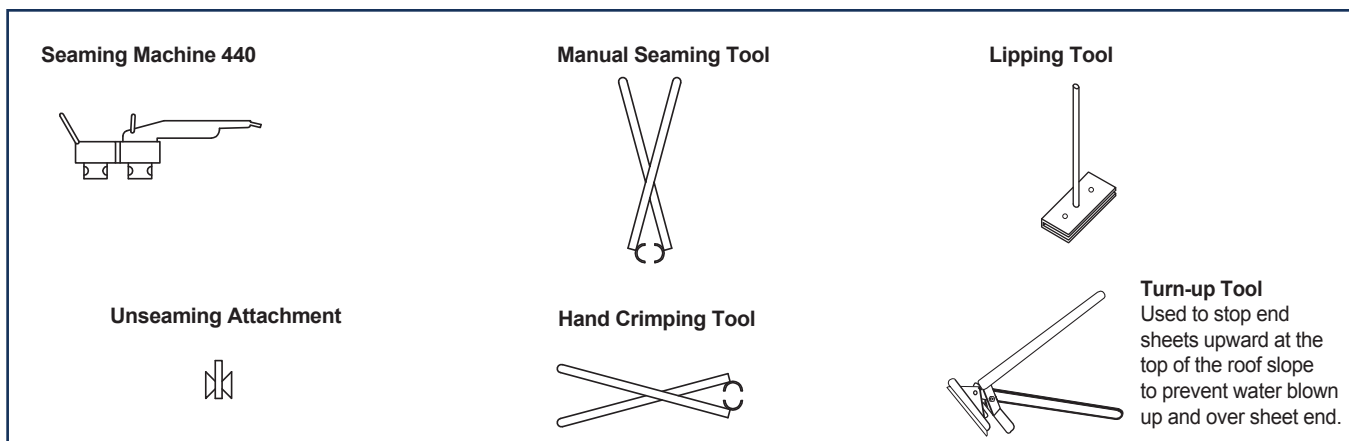
Available in 0.58mm / 0.8mm thick galvanised Z275 steel, 0.53mm thick Zinalume® AZ150 or 0.55mm thick ZincAL® AZ150. Or with a colour option in Chromadek® (Galvanised Z200), Clean COLORBOND™ (Zinalume® AZ150) or COLORPLUS® (ZincAL® AZ150) finish to one / two sides.

For aluminium available in 0.7mm or 0.8mm thick in mill finish or colour coated.



*** When sheet lengths are over 30m (20m for aluminium) flashings must be fixed to sheets using sliding brackets.**

Tools



Please visit our website or contact GRS for standard flashing details

Isando Tel: +27 (0) 11 898 2900
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Bloemfontein
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 Tel: +27 (0) 14 596 6121
 Tel: +27 (0) 54 332 1657

Exports Tel: +27 (0) 11 898 2900
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Namibia Tel: +264 (002) 61 263 890

