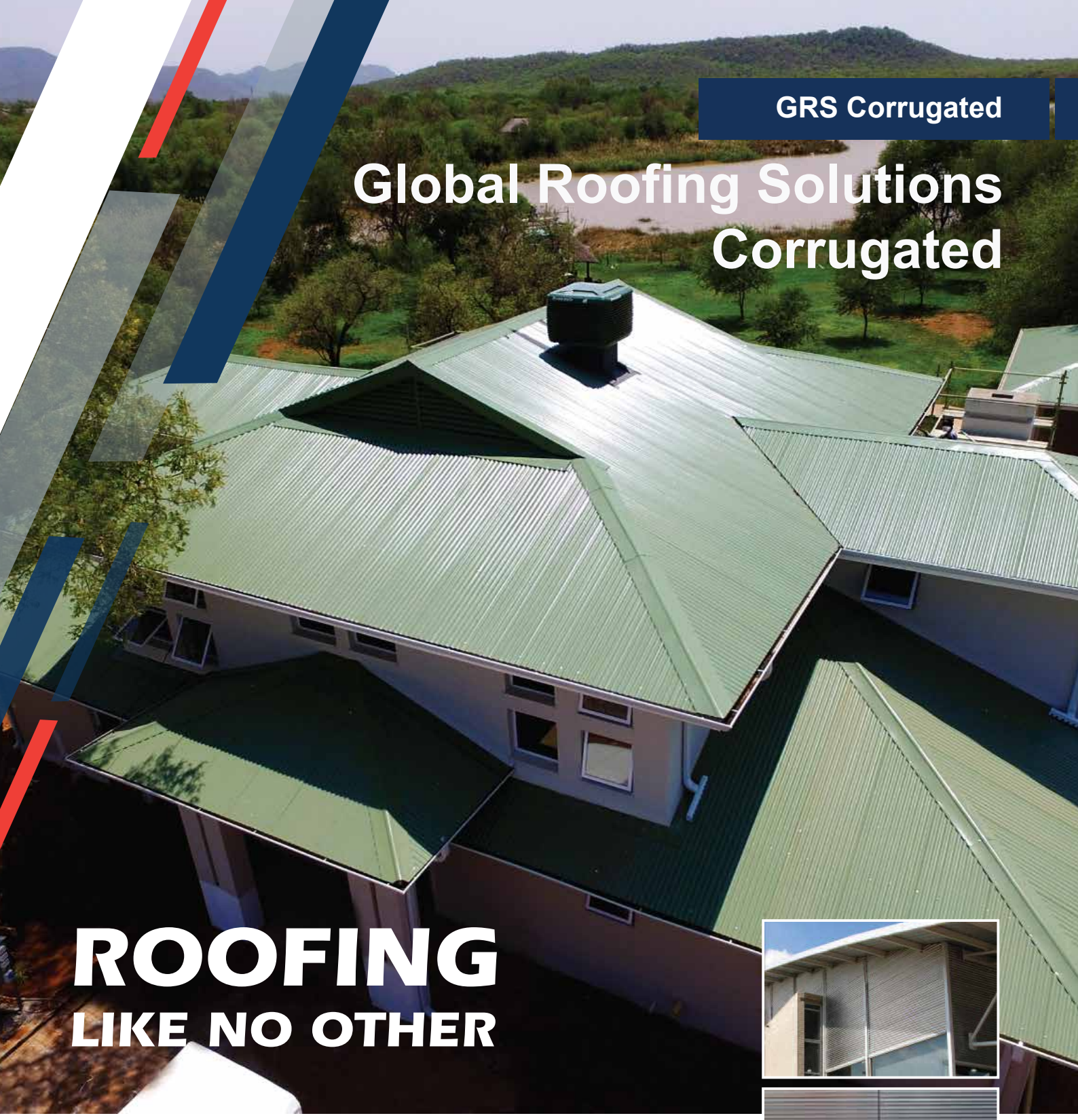
GRS Corrugated

Global Roofing Solutions Corrugated



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GRS Corrugated

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Typical Specification

Materials

The roofing / side cladding shall be Corrugated 10.5 profile, in one of the materials in the table below. Corrugated 10.5 is obtained from Global Roofing Solutions.

Material	Steel	Colour One Side	Colour Two Side
Galvanised Z275	ISQ 550 for 0.5mm ISQ 300 for 0.58mm ISQ 230 for 0.8mm	———	———
Chromadek® Z200		✓	Special
Zincalume® AZ150	G550	———	———
Clean COLORBOND™ AZ150		✓	Special
ZincAL® AZ150	G550	———	———
COLORPLUS® AZ150		✓	Special

The Profile

Shall be roll-formed with 10,5 corrugations at 76mm centres giving a nett cover of 762mm. The rib height shall be 17.5mm.

Embossing

Corrugated 10.5 sheeting can be embossed for thicknesses not less than 0,5mm. Embossing provides a quality, textured finish to the sheet and reduces glare, minimises potentially unsightly "oil canning" and enhances the appearance of a metal clad building. High yield materials (ISQ 550 and G550) are available lightly embossed.

Sheet Length

Corrugated is available in sheet lengths limited only by transport restrictions, with normal loads being 12.5m. With special transport arrangements lengths, up to 18.6m can be delivered.

Roof Pitch

Corrugated may be used at a minimum roof pitch of 7.5° for rafter lengths up to 15m. A minimum of 10° is required for rafter lengths greater than 15m. Where possible, the maximum distance between top and bottom rows of fasteners should not exceed 24m for crest fixing and 15m for valley / pan fixing after which an expansion joint (step lap) is recommended. For all conditions,end laps must be sealed with an approved sealing strip.

Bullnosing and Curving

Care must be taken when ordering bullnoses and curves as there are no broad or narrow flutes on a Corrugated 10.5 sheeting to differentiate between a normal or reverse bullnose.

Two items must be clearly indicated on a Corrugated 10.5 bullnose:

1. The position of the "lip up" or "lip down" on the sheet.
2. The colour requirements.

Curving

Corrugated can be cranked curved to any radius greater than 800mm subject to transportation limits.

Flashings

Stop endings must be formed at the apex to form a dam. The roof sheeting shall be closed as necessary with purpose-made flashings and poly closers where necessary.

Versatile

Corrugated 10.5 is available in stainless steel, aluminium and polycarbonate sheets. A full range of accessories includes flashings, fascias, gutters and downpipes.

Site Handling

Corrugated 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.

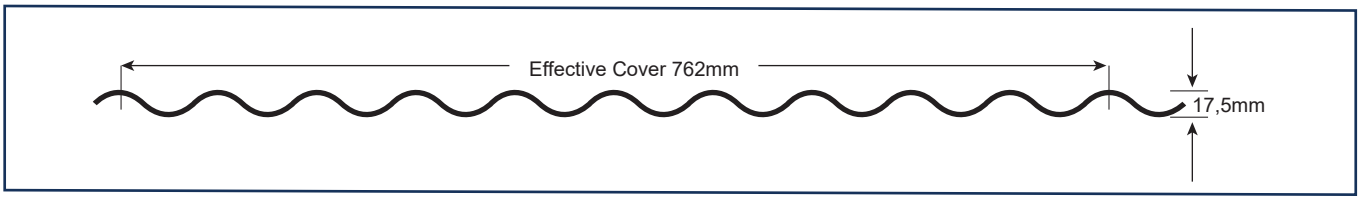
Cleaning Up

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

Profile: Corrugated 10.5



Corrugated Maximum Allowable Support Spacings (mm)						
Type of Span	**0.47mm** 550 MPa	**0.5mm** 550 MPa	**0.53mm** 550 MPa	**0.55mm** 550 MPa	**0.58mm** 300 MPa	**0.8mm** 230 MPa
Roofs						
Single Span	0.600m	0.650m	0.700m	0.700m	0.600m	0.900m
End Span	0.900m	1.100m	1.300m	1.350m	1.050m	1.200m
Internal Span	1.200m	1.450m	1.700m	1.750m	1.300m	1.700m
Cantilever	0.200m	0.200m	0.250m	0.250m	0.200m	0.250m
Walls						
Single Span	1.200m	1.350m	1.500m	1.500m	1.200m	1.500m
End Span	1.600m	1.800m	2.000m	2.000m	1.600m	2.000m
Internal Span	2.200m	2.300m	2.400m	2.450m	1.900m	2.400m
Cantilever	0.200m	0.200m	0.250m	0.250m	0.200m	0.250m
Nominal mass kg/m²	4.61	5.10	5.22	5.8	5.86	7.92

Available in Galvanised, Zincalume®, Zincal® and Chromadek®, Colorbond™, Colorplus®
- Spans don't apply to natural sprung sheets. Consult GRS Technical Department.
- Spans for timber purlins to be in accordance with SANS 10400

Loading

Purlin support centres are based on the following design criteria and obtained through testing:
Roofs – Ultimate super-imposed distributed load of 1,50 kN/m² and ultimate uplift load of 1,60 kN/m²
Walls – Ultimate super-imposed distributed load of 0,75 kN/m²

Assembly

The sheeting shall be laid with side-laps on the leeward side of the prevailing wind direction and placed in position to give 1,5 corrugations side-lap. An approved side-lap sealant shall be incorporated on roofing with a pitch less than 15°. Side-lap stitching shall be effected mid-span between purlins. For roofs, allow a minimum end lap of 230mm between 10° and 15° pitch and 150mm above 15°. For walls allow a minimum end lap of 100mm

Fasteners

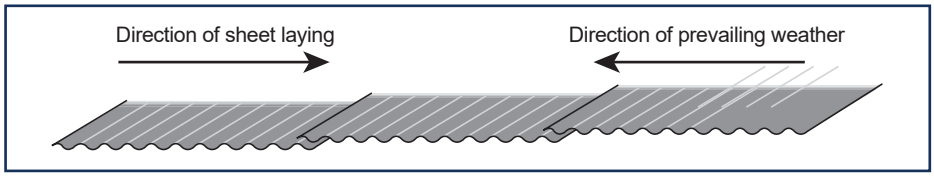
For a range of fasteners to be used with Corrugated 10.5, please refer to the GRS installation manual.

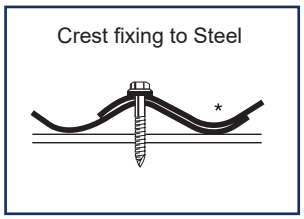
Fastener Holes

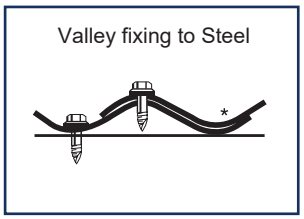
Do not use punches to form fastener holes. Use correct size drill to suit fastener, or self-drilling screws where applicable.

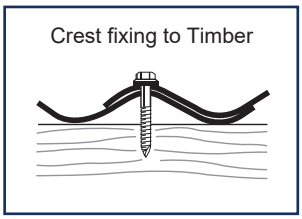
Note

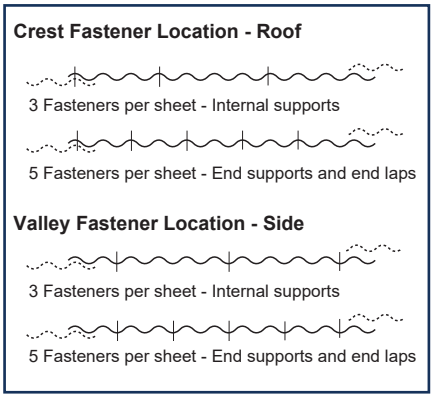
Fasteners must be selected to match the life expectancy of the roofing and cladding material. The coating class for fasteners, complying with SANS 1273, should be used in conjunction with all roofing and cladding material. For a full range of compatible fasteners, please refer to the GRS Installation Manual.











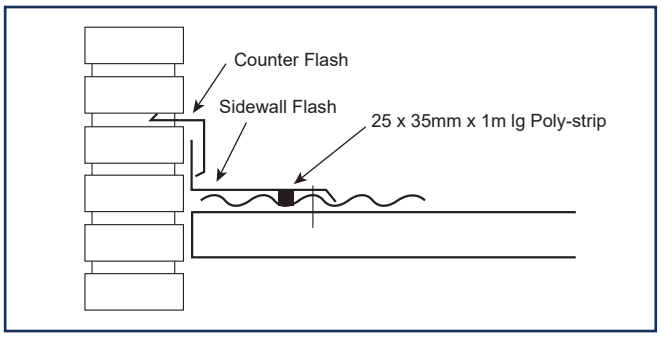
*DO NOT place fastener in this valley.
Leakage through underlap will result if pierced.

NOTE: Do not over-tighten screws. Drive screw until slight deformation is just visible at crest of rib.

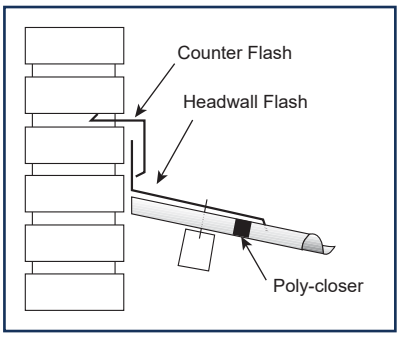
Popular Flashings

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

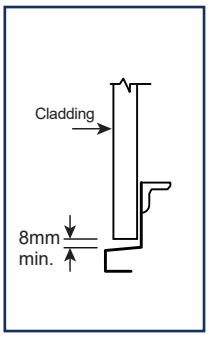
Sidewall Flashing



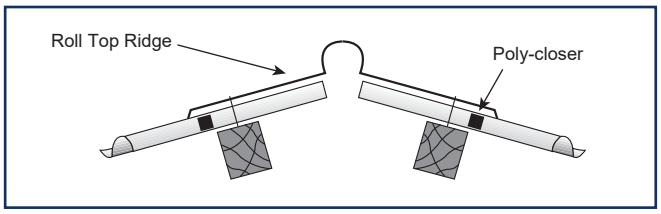
Headwall Flashing



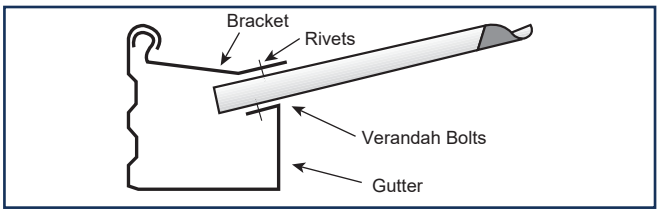
Drip Flash



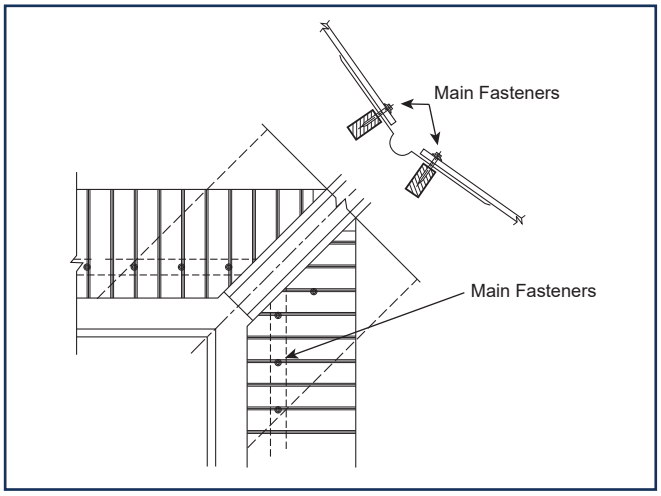
Ridge Flashing



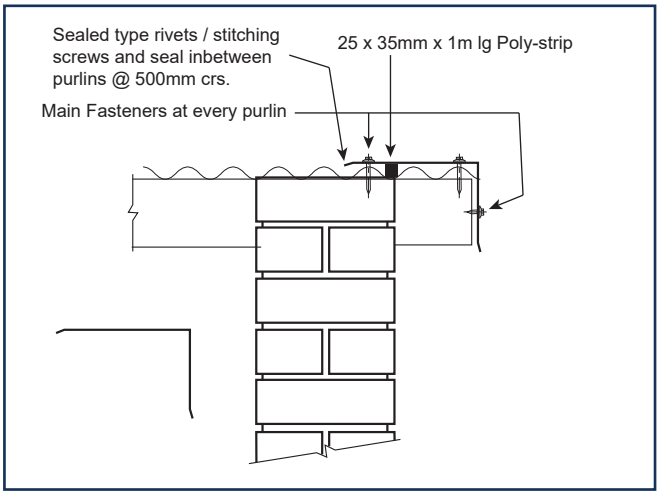
Gutter Detail



Valley Flashing



Gable Flashing



Please visit our website or contact GRS for standard flashing details

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