

GRS IBR 686

Global Roofing Solutions IBR 686

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GRS IBR 686



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GLOBAL ROOFING SOLUTIONS

BrownBuilt | HH Robertson



Typical Specification

Materials

IBR 686

The roofing / side cladding shall be IBR 686 profile, in one of the materials in the table below. IBR 686 is obtained from Global Roofing Solutions.

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



The Profile

IBR 686

The profile shall have five trapezoidal ribs at 171.5mm centres giving a nett cover of 686mm with each pan incorporating one stiffener rib. The rib height shall be 37mm.

Assembly

The IBR sheeting shall be laid in strict accordance with the manufacturer's specification.

Sheet Length

IBR 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

IBR may be used at a minimum roof pitch of 5° for rafter lengths up to 30m. A minimum of 7.5° is required for rafter lengths greater than 30m. Where possible, the max 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.

Flashings

Stop endings must be formed at the apex to form a dam and the pan turned down to form a drip. The roof sheeting shall be closed as necessary with purpose-made flashings and polyclosures, where necessary.

Cranking

IBR 686 can be cranked from a minimum radius of 409mm for material thicknesses of 0.5mm, 0.53mm and 0.58mm.

Curving

IBR 686 can be cranked curved to any radius greater than 800mm subject to transportation limits.

Site Handling

IBR 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

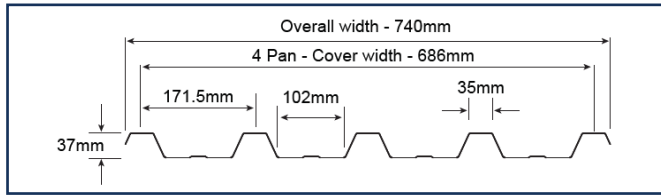
The complete roof must be kept clean and free of any swarf and debris.

Quality Assurance

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

Profile: IBR 686

IBR 686



IBR 686 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	1.550m	1.550m	1.750m	1.750m	1.750m	2.250m
End Span	1.700m	1.700m	1.800m	1.800m	1.800m	2.300m
Internal Span	1.800m	1.800m	2.100m	2.100m	2.100m	2.500m
Cantilever	0.350m	0.350m	0.450m	0.450m	0.450m	0.550m
Walls						
Single Span	2.400m	2.400m	2.600m	2.600m	2.600m	2.950m
End Span	2.500m	2.500m	2.700m	2.700m	2.700m	3.000m
Internal Span	2.750m	2.750m	2.950m	2.950m	2.900m	3.600m
Cantilever	0.850m	0.850m	1.000m	1.000m	1.000m	1.150m
Nominal mass kg/m ²	4.92	5.48	5.75	5.8	6.37	8.76

Available in Galvanised, Zinalume®, Zinca® 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.



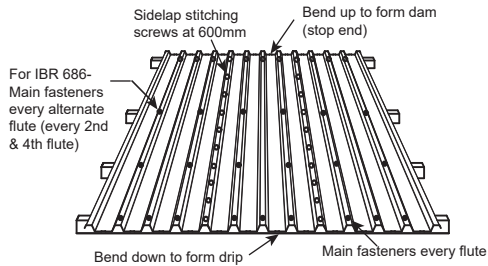
Note

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.

Assembly

IBR 686 Assembly - Roof

- Main Fasteners
- Sidelap Fasteners



Note: Main Fasteners

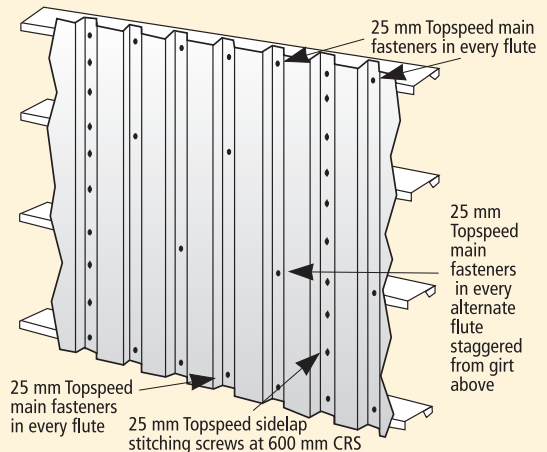
- #12 - 14 x 65mm Ig Self-Drilling Hex Flange Head screw + EPDM seal - Type 3 Drill Point - Into Steel 1mm - 4.5mm thick Roof (Only if NO insulation)
- #12 - 14 x 25mm Ig Self-Drilling Hex Flange Head screw + EPDM seal - Type 3 Drill Point - Into Steel 1mm - 4.5mm thick Side Cladding (Only if NO insulation)
- #12 - 11 x 85mm Ig Self-Drilling Hex Flange Head screw + EPDM seal - Type 17 Drill Point - Into Timber (Only if NO insulation)
- M6 - 20 x 60mm Buttress Thread Zap Self-Drilling Hex Flange Head screw + EPDM seal # 2 Drill Point - Into Light Steel Structures (Only if NO insulation)

Note: Sidelap Fasteners

- #14 - 14 x 22mm Ig Self-Drilling Hex Flange Head Stitching Screw + EPDM seal - For Sidelap Stitching and Flashings

Note: NO INSULATION APPLICATION ONLY!

Assembly - Side Cladding



NOTE: Main fasteners:

- 25 mm LG Topspeed screws to be used for steel purlins
- 65 mm LG Topspeed screws to be used for timber purlins
- 19 mm dia Bonded washers to be used

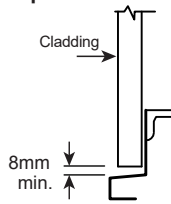
Side lap fasteners:

- 25 mm Lg Topspeed screws to be used for side lap stitching
- 19 mm dia Bonded washers to be used for side lap stitching

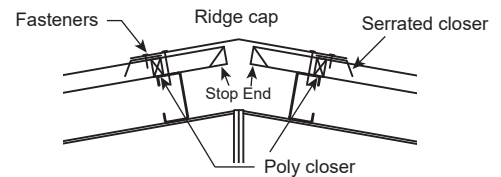
Popular Flashings

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 Chromadek® (Galvanised Z200), Clean COLORBOND™ (Zinalume® AZ150) or COLOR-PLUS® (ZincAL® AZ150) finish to one / two sides.

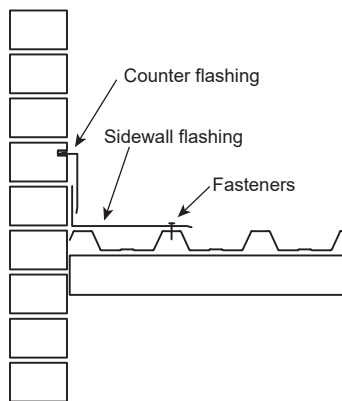
Drip Flash



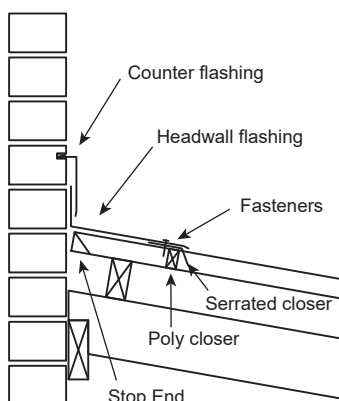
Ridge flashing



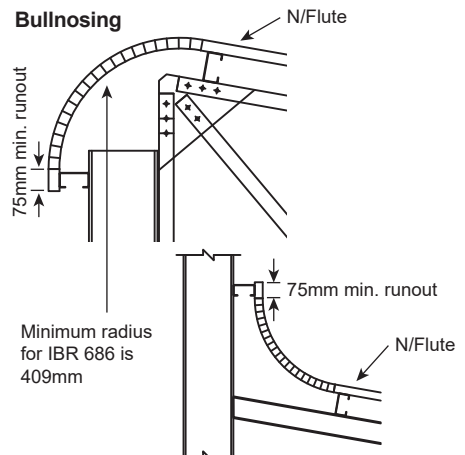
Sidewall flashing



Headwall flashing



Bullnosing



Please visit our website or contact GRS for standard flashing details

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