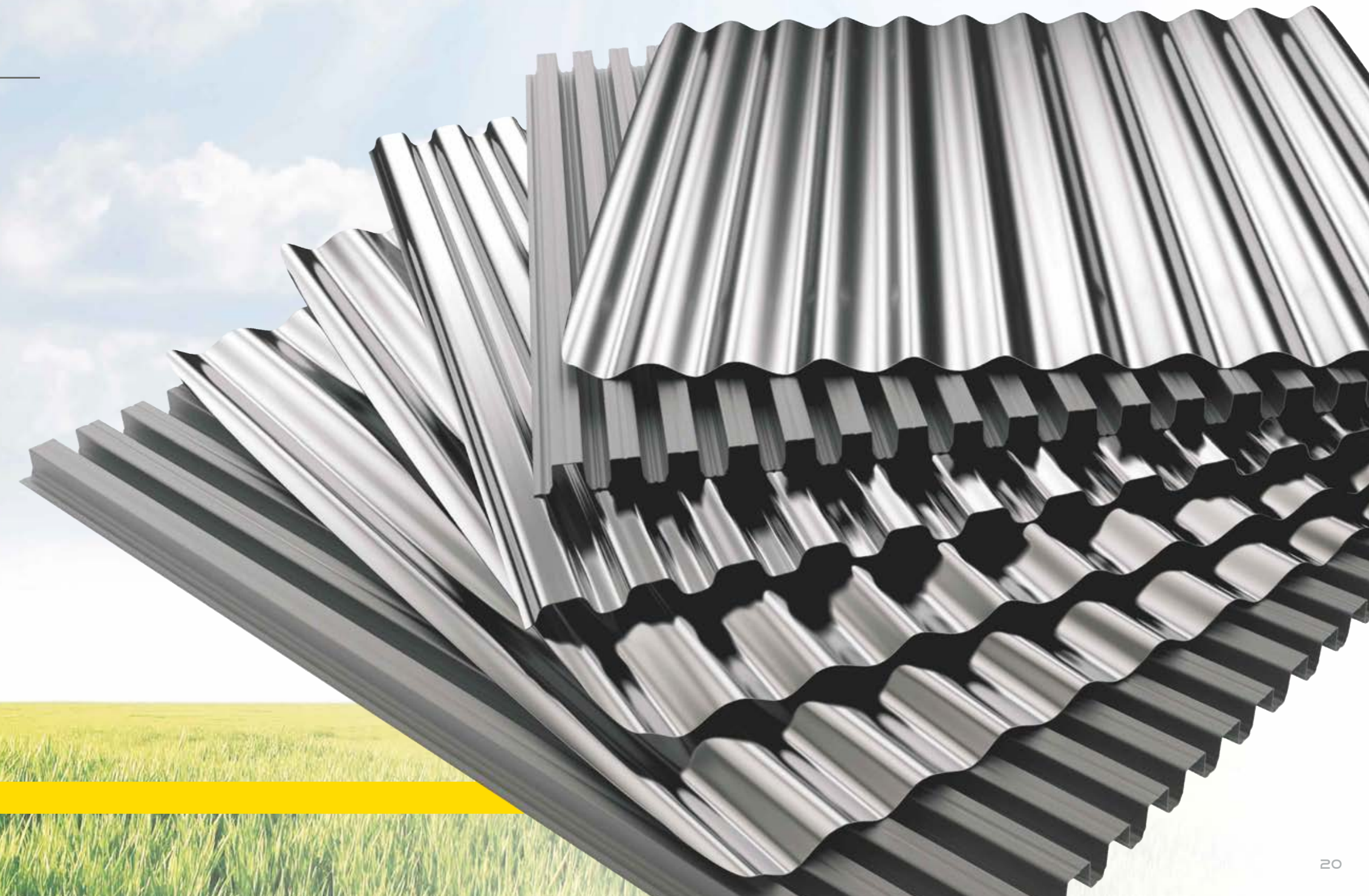


# IBR, WIDESPAN AND CORRUGATED SHEETING

---



CLOTAN STEEL- WITH US GREEN IS A LIFESTYLE

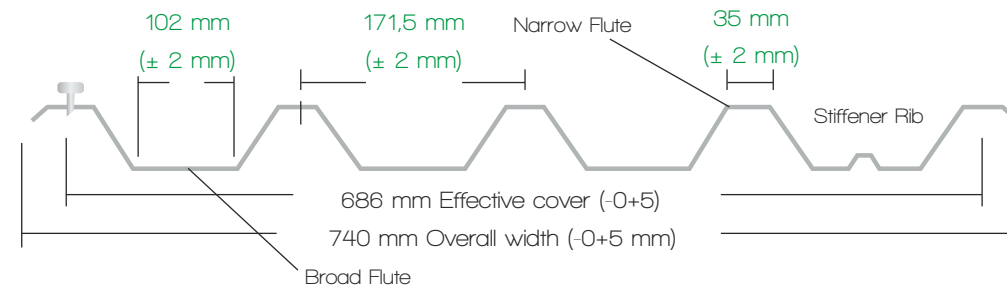


# IBR

## ROOF SHEETING

### IBR sheeting

IBR is a square fluted profile with an effective covering width of 686 mm, designed for use as side cladding or roofing material in commercial, industrial and residential buildings. The name IBR is abbreviated from "Inverted Box Rib" and has become a household name in the South African building industry. The deep, broad flute design offers excellent drainage characteristics combined with optimum weight versus load/span capabilities. IBR can be factory cranked, curved and bullnosed to various radii depending on customers' requirements.



### Structural guidelines

IBR roof sheets are available in a wide range of materials, displaying various structural properties. It should be noted that the load span characteristics are only to be used as a broad guideline as purlin spacing is also dependant on other factors such as the prevailing winds in a certain area, snow during winter periods, the presence of dust and other particles in industrial areas, the type of structure that is being erected, etc. We therefore recommend that an engineer be consulted to determine the purlin spacing for a specific application.



| Thickness<br>Steel Grade  | Recommended maximum purlin spacing (metres) - IBR |                 |                           |                 |                   |                   |
|---------------------------|---------------------------------------------------|-----------------|---------------------------|-----------------|-------------------|-------------------|
|                           | 0.40 mm<br>ISQ300                                 | 0.47 mm<br>G550 | 0.50 mm<br>ISQ550<br>G550 | 0.55 mm<br>G550 | 0.58 mm<br>ISQ300 | 0.80 mm<br>ISQ230 |
| Roof - single span        | 1.25                                              | 1.65            | 1.65                      | 1.75            | 1.75              | 2.25              |
| Roof - double span        | 1.40                                              | 1.95            | 1.95                      | 2.10            | 2.10              | 2.50              |
| Cantilever - roof         | 0.20                                              | 0.40            | 0.40                      | 0.45            | 0.45              | 0.55              |
| Wall - single span        | 1.70                                              | 2.35            | 2.35                      | 2.60            | 2.60              | 2.95              |
| Wall - double span        | 1.90                                              | 2.75            | 2.75                      | 2.95            | 2.95              | 3.60              |
| Cantilever - wall         | 0.60                                              | 0.90            | 0.90                      | 100             | 100               | 1.15              |
| Weight per metre          | 2.974 kg                                          | 3.495 kg        | 3.718 kg                  | 4.090 kg        | 4.313 kg          | 5.949 kg          |
| Weight per m <sup>2</sup> | 4.34 kg                                           | 5.09 kg         | 5.42 kg                   | 5.96 kg         | 6.29 kg           | 8.67 kg           |

Table indicates standard stock available. Discuss your individual needs with our sales consultant.

Available dimensions

IBR sheeting is available in standard lengths of 1.5 to 14 m, although lengths of up to 20 m are available on request. The permissible length tolerance for the standard length range will be -0 +5 mm. Sheets outside these parameters are available on request and might be subject to special pricing arrangements. The maximum height which can be transported is 4,3 m. This factor should be taken into account when bullnoses and curves are designed.

Roof pitch

When using IBR, the recommended minimum pitch is 7.5° for roof slopes in excess of 30 m and 5° for slopes less than 30 m. When IBR roof sheets are end-lapped the roof pitch should be taken into account. The minimum end laps for roof pitches in excess of 15° is 150 mm and for other roofs a minimum of 250 mm is recommended. End laps for side sheeting should be at least 100 mm. It is recommended that end and side laps on low pitch roofs be sealed to ensure water tightness.



Installation procedure

The required number of IBR sheets can be calculated as follows:

Number of sheets =  $\frac{\text{Length of building} + \text{gable end overhangs} - 70 \text{ mm}}{0.686 \text{ m (Cover width of sheet)}}$

Roof sheets must be laid with the narrow flute of one corrugation side lap uppermost and should be fixed through the crests of alternate flutes to purlins using 65 mm Top Speed or Tex screws into steel purlins and 90 mm Tex or Top Speed screws in the case of timber roofs. All fasteners should incorporate 26 mm dia bonded washers.

For vertical wall cladding (side cladding) it is recommended that the broad fluted be fixed externally with the main and side lap fasteners in the web of the flutes. Side cladding can be fixed using 25 mm Tex or Top Speed screws. All fasteners should incorporate 26 mm dia bonded washers.

In order to qualify for a guarantee on Zinalume®, Colorbond®, Colorplus® and ZincAL® sheets the following fasteners supplied by Buildex Industries should be used: Metaltex Climaseal 3 for steel purlins and Timbertex Zacs 4 for timber purlins. The use of these fasteners will dramatically increase the lifespan of the roof sheeting as corrosion caused by fasteners is avoided.



SPECIFICATION FOR ERECTION

Specification

\*Refer to table indicated below.

(\*Thickness and material quality) Clotan Steel IBR (with/without) integral stiffening rib (Chromadek®/Colorbond®/Colorplus®/Zincalume® and ZincAL®) steel roof sheeting and accessories fixed to (timber/steel) purlins or rails with a (\*refer to table) spacing. All sheeting is to be clearly marked on the reverse side at one metre intervals indicating thickness, material quality and coating thickness.

(\*Thickness and material quality) Clotan Steel IBR (with/without) integral stiffening rib steel roof sheeting and accessories with (Chromadek®/Colorbond®/Colorplus®/Zincalume® and ZincAL®) finish on one side and protective primer coating on the reverse side fixed to (timber/steel) purlins or rails with a (\*refer to table) spacing. All sheeting is to be clearly marked on the reverse side at one metre intervals indicating thickness, material quality, coating thickness and paint system.

Thickness & material quality

Coating

Available paint system

0.40 mm - ISQ300

Z150 Galvanised

0.47 mm - ISQ550

Z275 Galvanised

0.47 mm - G550

AZ150 Zincalume®

0.50 mm - ISQ550

Z275 Galvanised

0.50 mm - G550

AZ150 ZincAL®

0.50 mm - ISQ550

Z200 Galvanised

Chromadek®

0.50 mm - ISQ550

Z275 Galvanised

Chromadek®

0.55 mm - G550

AZ150 Zincalume®

Colorbond®

0.55 mm - G550

AZ150 ZincAL®

Colorplus®

0.58 mm - ISQ300

Z275 Galvanised

0.58 mm - ISQ300

Z200 Galvanised

Chromadek®

0.58 mm - ISQ300

Z275 Galvanised

Chromadek®

0.80 mm - ISQ230

Z275 Galvanised

0.80 mm - ISQ230

Z275 Galvanised

Chromadek®



Available dimensions

IBR sheeting is available in standard lengths of 1.5 to 14 m, although lengths of up to 20 m are available on request. The permissible length tolerance for the standard length range will be -0 +5 mm. Sheets outside these parameters are available on request and might be subject to special pricing arrangements. The maximum height which can be transported is 4,3 m. This factor should be taken into account when bullnoses and curves are designed.

Roof pitch

When using IBR, the recommended minimum pitch is 7.5° for roof slopes in excess of 30 m and 5° for slopes less than 30 m. When IBR roof sheets are end-lapped the roof pitch should be taken into account. The minimum end laps for roof pitches in excess of 15° is 150 mm and for other roofs a minimum of 250 mm is recommended. End laps for side sheeting should be at least 100 mm. It is recommended that end and side laps on low pitch roofs be sealed to ensure water tightness.

Installation procedure

The required number of IBR sheets can be calculated as follows:

Number of sheets =

Length of building + gable end overhangs - 70 mm

0.686 m (Cover width of sheet)

Roof sheets must be laid with the narrow flute of one corrugation side lap uppermost and should be fixed through the crests of alternate flutes to purlins using 65 mm Top Speed or Tex screws into steel purlins and 90 mm Tex or Top Speed screws in the case of timber roofs. All fasteners should incorporate 26 mm dia bonded washers. For vertical wall cladding (side cladding) it is recommended that the broad fluted be fixed externally with the main and side lap fasteners in the web of the flutes. Side cladding can be fixed using 25 mm Tex or Top Speed screws. All fasteners should incorporate 26 mm dia bonded washers.

In order to qualify for a guarantee on Zincalume®, Colorbond®, Colorplus® and ZincAL® sheets the following fasteners supplied by Buildex Industries should be used: Metaltex Climaseal 3 for steel purlins and Timbertex Zacs 4 for timber purlins. The use of these fasteners will dramatically increase the lifespan of the roof sheeting as corrosion caused by fasteners is avoided.