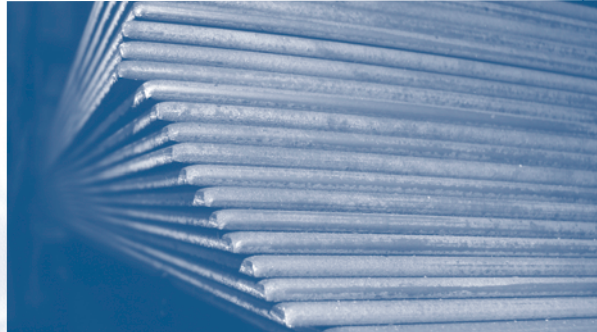
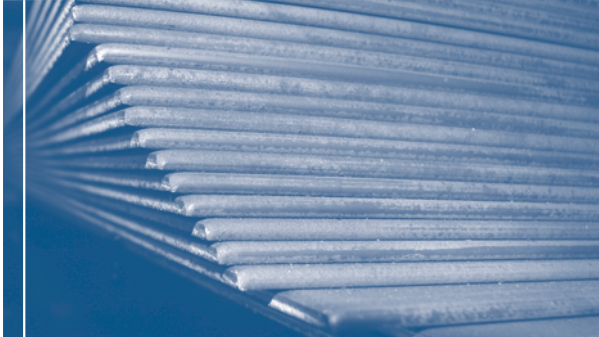


HOT ROLLED SHEETS COMMERCIAL QUALITY



NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 1,6	22,01
2450 x 925 x 1,6	29,15
3050 x 925 x 1,6	36,29
1850 x 1225 x 1,6	29,15
2450 x 1225 x 1,6	38,60
3050 x 1225 x 1,6	48,06
3650 x 1225 x 1,6	57,51
1850 x 925 x 2,0	27,51
2450 x 925 x 2,0	36,44
3050 x 925 x 2,0	45,36
1850 x 1225 x 2,0	36,44
2450 x 1225 x 2,0	48,25
3050 x 1225 x 2,0	60,07
3650 x 1225 x 2,0	71,89
3000 x 1500 x 2,0	72,35
1850 x 925 x 2,5	34,39
2450 x 925 x 2,5	45,55
3050 x 925 x 2,5	56,70
1850 x 1225 x 2,5	45,55
2450 x 1225 x 2,5	60,32
3050 x 1225 x 2,5	75,09
3650 x 1225 x 2,5	89,86
2450 x 1500 x 2,5	73,86
3000 x 1500 x 2,5	90,44
3650 x 1500 x 2,5	110,03
1850 x 925 x 2,8	38,52
2450 x 925 x 2,8	51,01
3050 x 925 x 2,8	63,50
1850 x 1225 x 2,8	51,01
2450 x 1225 x 2,8	67,56
3050 x 1225 x 2,8	84,10
3650 x 1225 x 2,8	100,64
2450 x 1500 x 2,8	82,72
3000 x 1500 x 2,8	101,29
3650 x 1500 x 2,8	123,24
2450 x 1800 x 2,8	99,27
3000 x 1800 x 2,8	121,55
3650 x 1800 x 2,8	147,89

NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 3,0	41,27
2450 x 925 x 3,0	54,66
3050 x 925 x 3,0	68,04
3650 x 925 x 3,0	81,43
1850 x 1225 x 3,0	54,66
2450 x 1225 x 3,0	72,38
3050 x 1225 x 3,0	90,11
3650 x 1225 x 3,0	107,83
2450 x 1500 x 3,0	88,63
3000 x 1500 x 3,0	108,53
3650 x 1500 x 3,0	132,04
2450 x 1800 x 3,0	106,36
3000 x 1800 x 3,0	130,23
3650 x 1800 x 3,0	158,45
4000 x 1800 x 3,0	173,64
5000 x 1800 x 3,0	217,05
6000 x 1800 x 3,0	260,46
2450 x 1225 x 3,5	84,44
3000 x 1500 x 3,5	126,61
1850 x 925 x 4,0	55,03
2450 x 1225 x 4,0	96,51
3000 x 1500 x 4,0	144,70
4000 x 1800 x 4,0	231,52



PICKLED AND OILED HOT ROLLED SHEETS COMMERCIAL QUALITY

NOMINAL SIZE mm	THEORETICAL MASS kg/each
2450 x 1225 x 2,0	48,25
2450 x 1225 x 2,5	60,32
2450 x 1225 x 2,8	67,56
2450 x 1225 x 3,0	72,38
2450 x 1225 x 3,5	84,44
2450 x 1225 x 4,0	96,51

PICKLED AND OILED IMPROVED FORMABILITY SHEETS SUPRAFORM HR 290

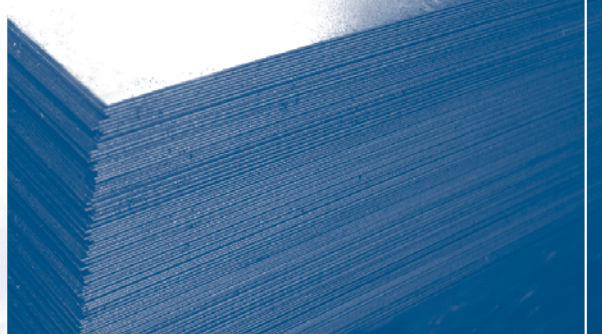
NOMINAL SIZE mm	THEORETICAL MASS kg/each
2450 x 1225 x 2,0	48,25
2450 x 1225 x 2,5	60,32
2450 x 1225 x 2,8	67,56
2450 x 1225 x 3,0	72,38
2450 x 1225 x 4,0	96,51

PICKLED AND OILED FORMING AND DRAWING SHEETS BS1449 KHR1

NOMINAL SIZE mm	THEORETICAL MASS kg/each
2450 x 1225 x 1,6	38,60
2450 x 1225 x 2,0	48,25
2450 x 1225 x 2,5	60,32
2450 x 1225 x 2,8	67,56
2450 x 1225 x 3,0	72,38



COLD ROLLED SHEETS COMMERCIAL QUALITY



NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 0,5	6,88
2450 x 925 x 0,5	9,11
1850 x 1225 x 0,5	9,11
2450 x 1225 x 0,5	12,06
1850 x 925 x 0,6	8,25
2450 x 925 x 0,6	10,93
1850 x 1225 x 0,6	10,93
2450 x 1225 x 0,6	14,48
3050 x 1225 x 0,6	18,02
3650 x 1225 x 0,6	21,57
1850 x 925 x 0,7	9,63
2450 x 1225 x 0,7	16,89
1850 x 925 x 0,8	11,01
2450 x 925 x 0,8	14,57
1850 x 1225 x 0,8	14,57
2450 x 1225 x 0,8	19,30
3050 x 1225 x 0,8	24,03
3650 x 1225 x 0,8	28,76
1850 x 925 x 0,9	12,38
2450 x 1225 x 0,9	21,71

NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 1,0	13,76
2450 x 925 x 1,0	18,22
1850 x 1225 x 1,0	18,22
2450 x 1225 x 1,0	24,13
3050 x 1225 x 1,0	30,04
3650 x 1225 x 1,0	35,94
1850 x 925 x 1,2	16,51
2450 x 925 x 1,2	21,86
1850 x 1225 x 1,2	21,86
2450 x 1225 x 1,2	28,95
3050 x 1225 x 1,2	36,04
3650 x 1225 x 1,2	43,13
1850 x 925 x 1,6	22,01
2450 x 925 x 1,6	29,15
1850 x 1225 x 1,6	29,15
2450 x 1225 x 1,6	38,60
3050 x 1225 x 1,6	48,06
3650 x 1225 x 1,6	57,51
3000 x 1500 x 1,6	57,88
1850 x 925 x 2,0	27,51
2450 x 925 x 2,0	36,44
1850 x 1225 x 2,0	36,44
2450 x 1225 x 2,0	48,25
3050 x 1225 x 2,0	60,07
3650 x 1225 x 2,0	71,89
3000 x 1500 x 2,0	72,35

GALVANISED SHEETS

SPELTER Z275

COMMERCIAL QUALITY

NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 0,5	6,88
2450 x 925 x 0,5	9,11
1850 x 1225 x 0,5	9,11
2450 x 1225 x 0,5	12,06
1850 x 925 x 0,6	8,25
2450 x 925 x 0,6	10,93
1850 x 1225 x 0,6	10,93
2450 x 1225 x 0,6	14,48
1850 x 925 x 0,8	11,01
2450 x 925 x 0,8	14,57
1850 x 1225 x 0,8	14,57
2450 x 1225 x 0,8	19,30
1850 x 925 x 1,0	13,76
2450 x 925 x 1,0	18,22
1850 x 1225 x 1,0	18,22
2450 x 1225 x 1,0	24,13

NOMINAL SIZE mm	THEORETICAL MASS kg/each
1850 x 925 x 1,2	16,51
2450 x 925 x 1,2	21,86
1850 x 1225 x 1,2	21,86
2450 x 1225 x 1,2	28,95
1850 x 925 x 1,6	22,01
2450 x 925 x 1,6	29,15
1850 x 1225 x 1,6	29,15
2450 x 1225 x 1,6	38,60
1850 x 925 x 2,0	27,51
2450 x 925 x 2,0	36,44
1850 x 1225 x 2,0	36,44
2450 x 1225 x 2,0	48,25
2450 x 1225 x 2,5	60,32
2450 x 1225 x 3,0	72,38

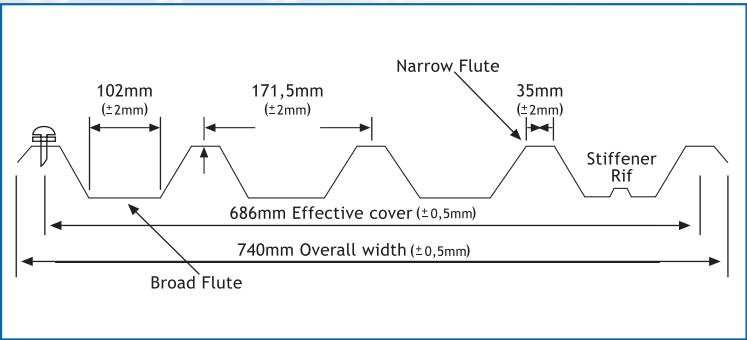
LOCK FORMING QUALITY

NOMINAL SIZE mm	THEORETICAL MASS kg/each
2450 x 1225 x 0,6	14,48
2450 x 1225 x 0,8	19,30
2450 x 1225 x 1,0	24,13
2450 x 1225 x 1,2	28,95

ROOF SHEETING

IBR SHEETING

IBR is a square fluted profile with an effective covering width of 686mm designed for use as side cladding or roofing material. The name IBR is abbreviated from *Inverted Box Rib*. The deep broad flute design offers excellent drainage combined with optimum weight versus load/span capabilities. IBR can be factory cranked, curved and bullnosed to various radii. When ordering Chromadek sheets coating to be specified on top or bottom.



STRUCTURAL GUIDELINES

IBR roof sheets are available in a wide range of materials displaying various structural properties. The load span characteristics should only be used as a guideline as purlin spacing is dependent on factors such as prevailing winds, the presence of dust and other particles in industrial areas and the type of structure being erected.

RECOMMENDED MAXIMUM PURLIN SPACING (metres)						
Thickness	0,47mm	0,53mm	0,40mm	0,50mm	0,58mm	0,80mm
Steel Grade	G550	G550	ISQ300	ISQ550	ISQ300	ISQ230
Roof - Single Span	1,65	1,75	1,25	1,65	1,75	2,25
Roof - Double Span	1,95	2,10	1,40	1,95	2,10	2,50
Cantilever Roof	0,40	0,45	0,20	0,40	0,45	0,55
Wall - Single Span	2,35	2,60	1,70	2,35	2,60	2,95
Wall - Double Span	2,75	2,95	1,90	2,75	2,95	3,60
Cantilever - Wall	0,90	1,00	0,60	0,90	1,00	1,15
Weight per metre	3,194kg	3,833kg	2,897kg	3,615kg	4,197kg	5,798kg
Weight per sq metre	4,655kg	5,587kg	4,223kg	5,269kg	6,118kg	8,451kg
Coating Type	Zincalume	Zincalume	Galvanised	Galvanised	Galvanised	Galvanised
Coating Mass	AZ150	AZ150	Z160	Z275	Z275	Z275
Paint System	Colourbond	Colourbond	N/A	Chromadek	Chromadek	Chromadek
Thickness Tolerance	± 0,03	± 0,04	± 0,02	± 0,03	± 0,04	
APPROXIMATE LIFE SPAN (years)						
Thickness	0,47mm	0,53mm	0,40mm	0,50mm	0,58mm	0,80mm
Steel Grade	G550	G550	ISQ300	ISQ550	ISQ300	ISQ230
Rural Area	>30	>30	>10	>20	>20	>20
Industrial / Marine	>20	>20	5 - 10	10 - 20	10 - 20	10 - 20
Severe Marine	10 - 20	10 - 20	1 - 5	3 - 10	3 - 10	3 - 10

AVAILABLE DIMENSIONS

IBR sheeting is available in standard lengths of 1,5 to 14 metres (20 metre lengths available on request). Length tolerance for the standard range is -0+5mm. The maximum height which can be transported is 4,3 metres. This should be taken into account when bullnoses and curves are designed.

ROOF PITCH

The recommended minimum pitch for roof slopes in excess of 30m is 7,5° and for less than 30m, 5°. When the 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 150mm and for other roofs 250mm is recommended. End laps for side sheeting should be at least 100mm and it is recommended that end and side laps on low pitch roofs are sealed for watertightness.

ROOF SHEETING

IBR SHEETING

THICKNESS & MATERIAL QUALITY	COATING	AVAILABLE PAINT SYSTEM
0,40mm - ISQ 300	Z 160 Galvanised	
0,50mm - ISQ 550	Z 275 Galvanised	
0,58mm - ISQ 300	Z 275 Galvanised	
0,80mm - ISQ 230	Z 275 Galvanised	
0,50mm - ISQ 550	Z 275 Galvanised	Chromadek
0,58mm - ISQ 300	Z 275 Galvanised	Chromadek
0,80mm - ISQ 230	Z 275 Galvanised	Chromadek
0,47mm - G 550	AZ 150 Zinalume	
0,53mm - G 550	AZ 150 Zinalume	Colorbond

INSTALLATION PROCEDURE

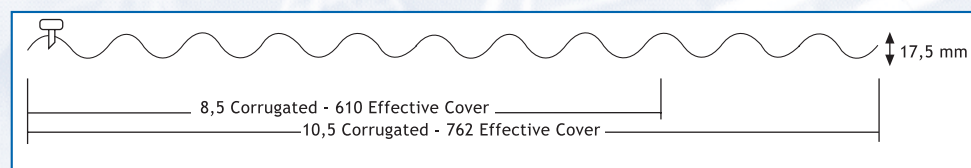
The required number of IBR sheets can be calculated as follows: $\text{No. of sheets} = \frac{\text{Length of building} + \text{gable end overhangs} - 70\text{mm}}{0,686\text{m (cover width of sheet)}}$

Roof sheets must be laid with one corrugation side lap with the narrow flute uppermost and be fixed through the crests of alternate flutes to purlins using 65mm Top Speed or Tex screws into steel purlins and 90mm Tex or Top Speed screws in the case of timber roofs. All fasteners shall incorporate 26mm dia bonded washers. For vertical wall cladding (side cladding) it is recommended that the broad flutes are fixed externally with the main and side lap fasteners in the web of the flutes. The use of correct fasteners will increase the life span of the roof sheeting as corrosion caused by fasteners is avoided.

CORRUGATED SHEETING

Corrugated is the traditional S-Rib profile for roofing and cladding applications. It is the most commonly used roofing profile because of its easy handling, fixing properties and related strength. The S-Rib is derived from sinus curve and offers strong structural properties. The 8,5/76 stands for 8,5 corrugations over the width of the sheet and 76 refers to the distance in millimetres between two consecutive curves.

The corrugated profile virtually eliminates oil canning and the sheeting can be factory cranked, curved and bullnosed to various radii. The overall width of a 8,5 Corrugated sheet is 700mm and that of a 10,5 Corrugated sheet is 840mm.



Corrugated sheeting is available in standard lengths of 1,8 to 14m. The permissible length tolerance for the standard length range will be -0+5mm. The maximum height which can be transported is 4,3m. This factor should be taken into account when bullnoses and curves are designed.

The recommended minimum pitch for roof slopes in excess of 15m is 10° and for slopes less than 15m is 7,5°. When sheets are end-lapped the roof pitch should be taken into account. The minimum end laps for roof pitches in excess of 15° is 150mm and for other roofs a minimum of 250mm is recommended. End laps for side sheeting should be at least 100mm. It is recommended that end and side laps on low pitch roofs be sealed to ensure water tightness.

INSTALLATION PROCEDURE

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

$$\text{Number of sheets} = \frac{\text{Length of building} + \text{gable end overhangs} - 76\text{mm}}{0,726\text{m (Cover width of sheet)}}$$

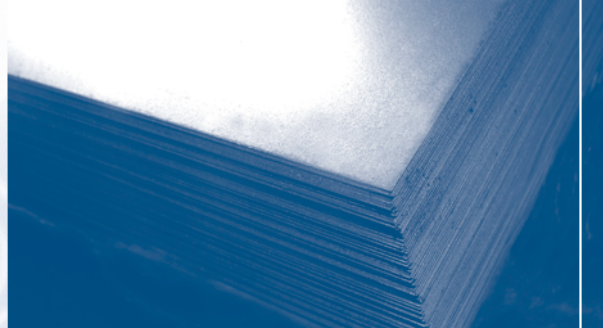
Roof sheets and vertical wall cladding (side cladding) must be laid with one and a half corrugation side lap and must be fixed through the crests of alternate flutes to purlins using 50mm Top Speed or Tex screws into steel purlins and 65mm Tex or Top Speed screws in the case of timber supports. All fasteners must incorporate 19mm dia bonded washers. The use of Metaltex Climaseal 3 for steel purlins and Timbertex Zacs 4 for timber purlins will dramatically increase the life span of the roof sheeting as corrosion caused by fasteners is avoided.

When corrugated sheeting is double overlapped the covering width for 8,5 Corrugated changes to 535mm and for 10,5 Corrugated changes to 686mm.



SHEETS

TECHNICAL DATA



QUALITY	CHEMICAL COMPOSITION % (LADLE ANALYSIS)									TENSILE STRENGTH (MIN) (MPa)	YIELD STRESS (MIN) (MPa)	ELONGATION % (MIN) IN GAUGE LENGTH OF		MANDREL DIAMETER FOR 1800 BEND TEST
	C	Mn	P	S	Si	Cu	Al	Ni	Cr			50mm	200mm	
COMMERCIAL QUALITY	0,15 MAX				NOT SPECIFIED									FLAT
BS 1449														
HR 37/23	0,20 MAX	1,20 MAX	0,05 MAX	0,05 MAX						370	230	28	20	2t<3mm 3t>3mm
HR 43/25	0,25 MAX	1,20 MAX	0,05 MAX	0,05 MAX						430	250	25	16	3t
HR 50/35	0,20 MAX	1,50 MAX	0,05 MAX	0,05 MAX						500	350	20	12	3t
KHR 1	0,08 MAX	0,45 MAX	0,025 MAX	0,03 MAX			0,02/ 0,06			290	170	34	25	FLAT
HR 2	0,08 MAX	0,54 MAX	0,03 MAX	0,035 MAX						290	170	34	25	FLAT
HR 3	0,10 MAX	0,50 MAX	0,04 MAX	0,04 MAX						290	170	28	21	FLAT
HR 4	0,12 MAX	0,60 MAX	0,05 MAX	0,05 MAX						280	170	25	18	1t<3mm 3t<3mm
COLD ROLLED														
KCR 1	0,08 MAX	0,45 MAX	0,025 MAX	0,03 MAX			0,02/ 0,07			280	140	38	29	FLAT
CR 2	0,08 MAX	0,45 MAX	0,03 MAX	0,035 MAX						280	140	36	27	FLAT
CR 3	0,10 MAX	0,50 MAX	0,04 MAX	0,04 MAX						} SUBJECT TO NEGOTIATION				
CR 4	0,12 MAX	0,60 MAX	0,05 MAX	0,05 MAX										
SUPRAFORM														
HR 190	0,06	0,30	0,02 MAX	0,02 MAX	0,02		0,03			280	190/270	2<t<4=35 4<t<8=37		FLAT
HR 220	0,05	0,25	0,02 MAX	0,02 MAX	0,02		0,03			320	220/300	2<t<4=32 4<t<8=34		FLAT
HR 250	0,10	0,55	0,02 MAX	0,02 MAX	0,02		0,03			360	250/330	2<t<4=30 4<t<8=33		2<t<4=FLAT 4<t<8=1t
HR 290	0,16	0,65	0,02 MAX	0,02 MAX	0,02		0,03			400	290/370	2<t<4=27 4<t<8=30		2<t<4=1t 4<t<8=1,5t