Xiamen Yumi New Material Technology Co., Ltd.
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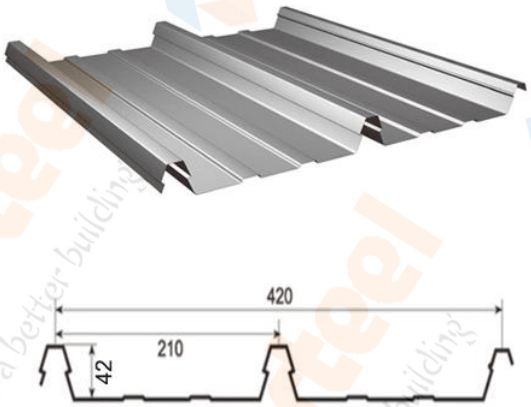
Technical data sheet of YX42-210-420

1. Basic information

1.1 Specifications



Model NO.	YX42-210-420
Effective width	420 mm
Feeding width	600 mm
Rib height	42 mm
Rib distance	210 mm
Rib quantity	3 Ribs
Length	20FT container: ≤ 5.85m
	40FT container: ≤ 11.90m

1.2 Specification tolerance:

Pitch	Rib distance	Effective width	Thickness	Panel length
±1mm	±2mm	N/A	±0.03mm	±5mm

1.3 Material & Finishes

Material options	Thickness range	Available color	Material grade
AL-MG-MN alloy metal sheets	0.7 - 1.2mm	Mill finished or as per RAL color	3003/3004 H24
PPGI /PPGL steel sheets	0.30 - 0.75mm	As per RAL color	S320/350/440/500/550GD; Z80G-Z275G; AZ60-200G.
Galvanized steel sheets	0.30 - 0.80mm	Galvanized natural color	S320/350/440/500/550GD; Z80G-Z275G.
Alu-zinc steel sheets	0.30 - 0.80mm	Galvalume natural color	S320/350/440/500/550GD; AZ60-200G.

2. Technical data sheet

2.1 Sectional capacity:

Thickness(mm)	Section inertia(cm^4/m)	Section resistance(cm^3/m)
0.50	16.80	8.95
0.60	20.22	10.74
0.80	26.96	14.32

Based on steel material, steel yield strength 350Mpa.

2.2 Maximum roof lengths for drainage:

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Peak rainfall intensity (mm/hr)	Roof slope				
	1°	2°	3°	5°	10°
100	380	470	550	685	935
150	265	315	368	456	625
200	192	235	277	347	469
250	153	187	223	277	377
300	128	160	186	230	315
400	99	119	141	171	237
500	78	95	112	138	190

2.3 Maximum recommended spacing of supports(Purlin spacing):

Panel thickness/mm	The panel type is only use for roof.		
	Single	End	Internal
0.50	1500	1800	2100
0.60	1800	2000	2100
0.80	1800	2000	2100

3. Installation

3.1 General installation note:

1) Check that the top faces of all purlins or battens are lyingin one plane, adjusting as necessary by packing or easingbetween these members and their supporting structure.Under no circumstances should packing be used directlyunder the fastening clips to adjust fall or alignment of roof. Accurate alignment ensures efficient locking of sheetsand clips. Conversely, misalignment can interfere with theocking action, particularly on close support centres.

2) To maintain maximum holding power the first and lastsupports and clips should be at least 75mm from eachend of the sheet.

3) Make spot checks for the alignment of sheets duringlaying to control fanning or creep(5 sheets=2100mm coverage).To rectify alignment, sheets may be adjusted 2mm by pulling the clip away or pushing towards the sheet while fastening the clip.

4) For very steep roof applications, a positive fastener (screw or bolt) is required in each sheet length toprevent movement down the fastening clips. This is best positioned under or through the flashing or capping at the top end.

5) YX42-210-420 can be fastened over insulation wool blankets up to 50mm thick when the blanket is draped over supports before installation of clips.

6) Sheets should project a minimum 50mm into the gutter line.

3.2 Transport handling & storage:

1)Before unloading all the wall cladding materials,they must be checked.Please refer to related orders and delivery notes to make sure all the materials are in correct quantities and lengths.If any discrepancies,please record immediately on the proof and notice us by e-mail or calling;

2)We suggest using forklift or telescopic forklift to unload steel sheets. When using fork or driving on uneven ground,please be careful not to wrap or damage the floor.One time only advise to unload one package;

3)When discharging manually, make sure that proper operators wear enough protective clothing, gloves and shoes at hand. Please note that unloading is the responsibility of the customer;

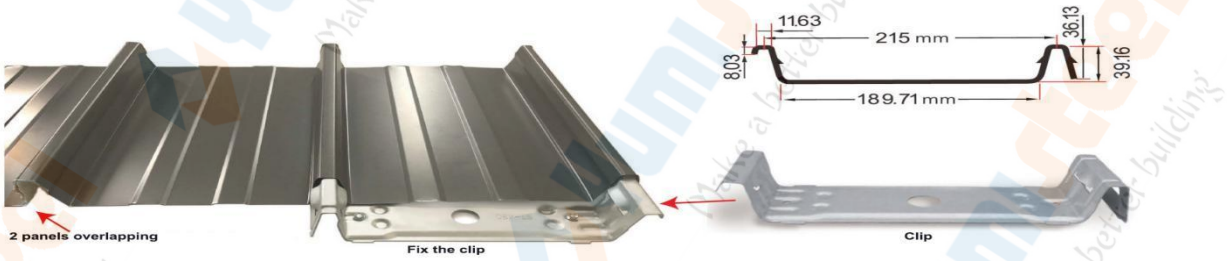
4)If possible, wall claddings are better to be offloaded to the area where they will be used to.In this way,it

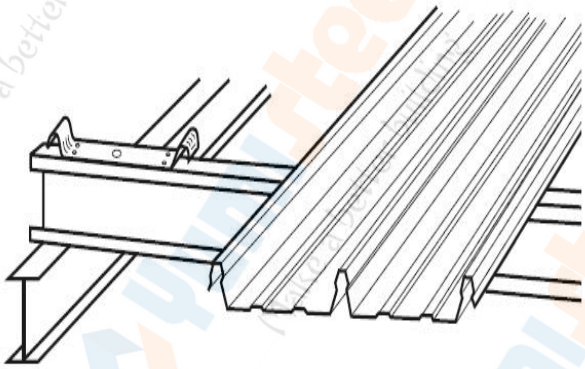
could reduce the risk of on-site damage;

5)If metal sheets couldn’t be used in short time,please don’t make the packages in good status,and stack in clean and dry place to avoid water.

3.3 Installation steps:

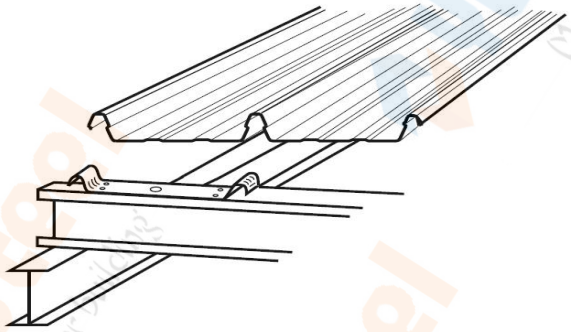
Panel overlapping:





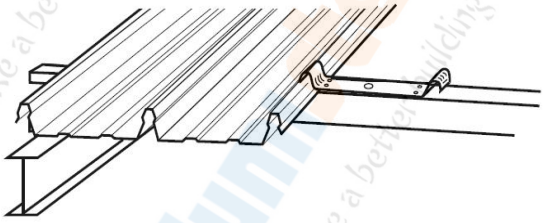
Step 01

When lifting sheet lengths onto the roof frame ready for installation, make sure all sheets have the overlapping ribs facing towards the side where fastening is to commence.The first run of clips must be located and fastened, one to each support, so that they will correctly engage in the overlapping and centre ribs of the first sheet when it isocated and locked over them. To do this, fasten clips to the purlins at each end of the sheet, having positioned them so that the first sheet will be in correct relation to other building elements. Align and fasten the remainder ofthe first run of clips using a string line or the first sheet as a straight edge.



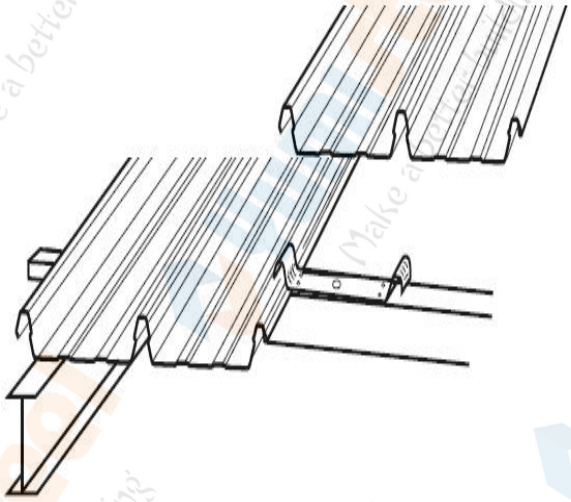
Step 02

Position the first sheet longitudinally in relation to gutter overhang and locate it over the fastened run of clips,positioning the centre rib first, and engage the centre andoverlapping ribs onto all clips by foot pressure.



Step 03

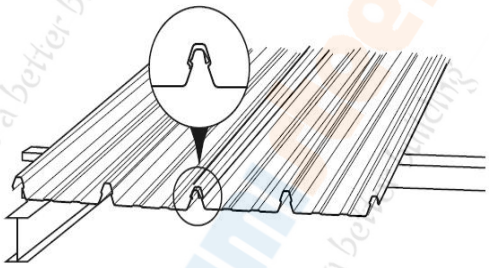
Position and fasten the next run of clips, one to each support, with the short return leg of the clip over the underlapping rib of the installed sheet. If the clip fouls one of the spurs spaced along the outer free edge of the underlapping rib, the spur can be flattened with a blow from a rubber mallet to allow the clip to seat down over the rib.



Step 04(01)

Place the second sheet over the second run of clips, again positioning the centre rib first. A string line stretched across the bottom alignment of the sheets can be used to check that the ends of the sheets are in line. Fully engage the interlocking ribs and the centre rib overeach clip.

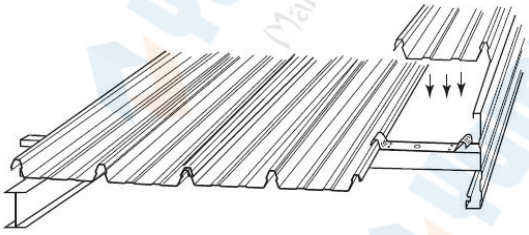
This can be achieved by walking along the full length of the sheet being installed with one foot in the tray next to the overlapping rib and the other foot applying pressure to the top of the interlocking ribs at regular intervals.Also apply foot pressure to the top of the centre rib overeach clip. For complete interlocking, which is essential, the spurs of YX42-210-420 panel along the underlapping rib must be fully engaged in the shoulder of the overlapping rib.



Step 04(02)

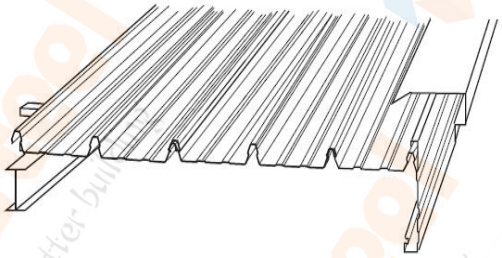
See illustration of 'Step 04(01)' above.A distinct "click" will be heard as the interlocking ribs fully engage.

When engaging YX42-210-420 panel interlocking ribs, stand only on the sheet being installed, that is the overlapping sheetand not on the preceding sheet.Install subsequent sheets by following Steps 3 and 4 and make periodic checks that the installed sheets are aligned with the roof perimeter.



Step 05

Part sheet cut longitudinally leaving full centre rib.



Step 06

If the space left between the last full sheet and the fascia or parapet is more than a half sheet width, a sheet can be cut longitudinally, leaving the centre rib complete. This partial sheet can be fully clipped onto a row of clips as for a full sheet, before installing the capping or flashing. If the space left between the last full sheet and the fascia or parapet is less than a half sheet width, it can be covered by the capping or flashing. In this case, the last sheet should be secured by cutting sheet in halves and fastening the underlapping rib at each purlin with a half sheet. Similarly, a half clip may also be used if required. in this case, where a partial sheet of less than two ribs is used, it is necessary to turn up the lip along the edge of the cut sheet.This can then be covered by the capping or flashing.

Last rib fastened with half sheet and covered by capping or flashing.

3.4 Installation note:

1) Care is required during installation to prevent stripping of thin material. (Single ply.)

2) All side-lapping screws with EPDM sealing washer.

3) It is recommended to use 2-3 clips per square meter.

4. Maintenance

1) Cleaning of color steel sheets: Generally, most of the dust and residue on the surface of the steel plate can be removed with clean water. In theory, it needs to be cleaned at least every six months. In areas with more salt spray and heavy industrial dust, cleaning should be more frequent. For stubborn stains that cannot be washed out, use a weak detergent or a household ammonia solution as follows;

2)Refinishing of color steel wall sheets: If scratches occur during installation and use, it may be necessary to repaint the defective part. Improper or excessively applied paint can damage the entire surface. It is best not to fix the scratches that appear inconspicuous at 6 feet because normal wind erosion can cover them. To repair the paint, it is only necessary to repair the peeled off part of the paint. Before the touch up, use alcohol to remove dirt, paraffin and other contamination.