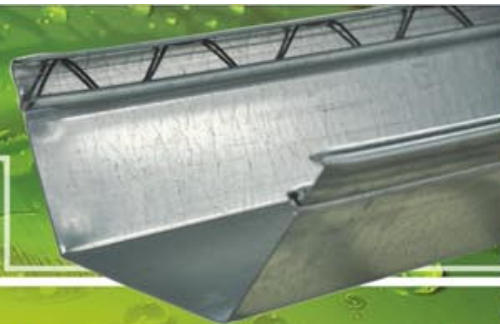


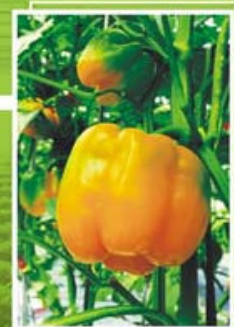
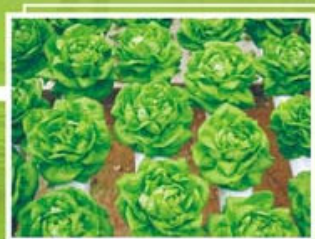
Our Projects...



TONG YONG METAL
SDN. BHD.

UNI-Interlocked™

STEEL GREENHOUSE SYSTEM



 通用金属有限公司 TONG YONG METAL SDN. BHD. Co. No. 237334-X

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MS ISO 9001 : 2008 REG. NO. AR 3261



Introduction

Another new product from TYMI It's made through roll forming and clipping process, which is different from conventional mild steel production process that need to apply heat welding to seal edges. UNI-INTERLOCKED™ PPGI or GI definitely is much more cost-efficient.

UNI-INTERLOCKED™ PPGI PIPE - Coupled with the top lamination of polyester / epoxy color paint on the galvanized iron (both surfaces internally and externally), pleasing appearance and a barrier film to enhance long-term durability. In comparison with mild steel which requires value adding, zinc coating and color coating to match up to our UNI-INTERLOCKED™ PPGI standard, costs will correspondingly increase and resulted in higher selling price which reduce customer's benefits.

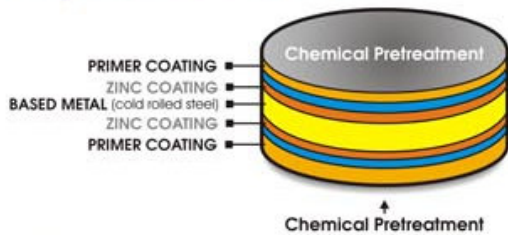
UNI-INTERLOCKED™ GI PIPE - The most economical and effective coated steel product with application of zinc coating that provides proper steel corrosion protection. The zinc coating mass of 275g/m² provides sacrificial protection and gives a high performance for outdoor application.

UNI-INTERLOCKED™ PPGI and GI PIPE - is the most suitable to be applied in greenhouse construction. It has been widely applied by a lot of companies in the market, especially a one of the top option by the farmers in Cameron Highlands. This proved that they had realized the value and benefits UNI-INTERLOCKED™ PPGI PIPE bring to them.



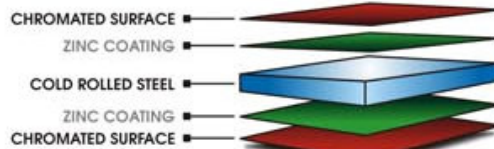
COATING ELEMENTS

Pre-painted Galvanised Iron



Steel Grade : JIS G3302, JIS G3312, ASTM A653(M), EN10142
Yield Stress : 550 Mpa Minimum or 400 Mpa Minimum (thk ≥ 1.2mm)
Coating : Galvanised Iron with Epoxy Paint

Galvanised Iron

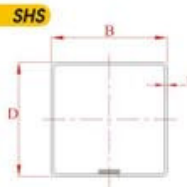
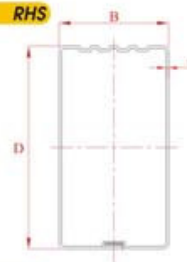


Steel Grade : JIS 3302 : SGC 570 or SGC 440(thk ≥ 1.2mm), AS 1397-1993
Yield Stress : 550 Mpa Minimum or 400 Mpa Minimum (thk ≥ 1.2mm)
Coating : Galvanized Iron (GI) or Zincalume

Benefits



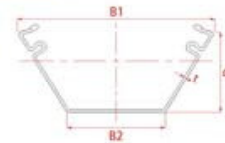
Cold-formed Rectangular / Square Hollow Section Properties



RHS/SHS (mm)	Exact Dimension			Weight w kg/m	Area A mm ²	Second Moment of Area		Radius of Gyration		Elastic Modulus	
	Depth D mm	Base B mm	Thickness t mm			I _x 10 ³ mm ⁴	I _y 10 ³ mm ⁴	r _x mm	r _y mm	Z _x 10 ³ mm ³	Z _y 10 ³ mm ³
13x25x0.42	13	25	0.42	0.31	31.20	2.60	1.00	9.19	5.54	0.21	0.15
25x25x0.42	25	25	0.42	0.40	42.00	4.30	4.30	10.03	10.03	0.34	0.34
25x25x0.45	25	25	0.45	0.42	45.00	4.40	4.40	10.02	10.02	0.36	0.36
25x25x0.55	25	25	0.55	0.52	55.00	5.30	5.30	9.90	9.90	0.43	0.43
25x25x0.70	25	25	0.70	0.66	70.00	6.70	6.70	9.92	9.92	0.54	0.54
31x31x0.70	31	31	0.70	0.84	86.80	12.73	12.73	12.25	12.25	0.84	0.84
31x31x0.80	31	31	0.80	0.96	99.20	14.37	14.37	12.19	12.19	0.95	0.95
25x50x0.42	50	25	0.42	0.57	63.00	21.70	7.50	18.45	10.84	0.87	0.60
25x50x0.55	50	25	0.55	0.75	82.50	27.20	9.40	18.16	10.67	1.10	0.76
25x50x0.70	50	25	0.70	0.95	103.00	34.70	11.90	18.34	10.73	1.39	0.95
50x50x0.80	50	50	0.80	1.42	160.00	62.65	62.65	20.05	20.05	2.55	2.55
50x50x1.00	50	50	1.00	1.78	196.00	78.50	78.50	20.01	20.01	3.14	3.14
50x50x1.20	50	50	1.20	2.14	234.20	93.00	93.00	19.93	19.93	3.72	3.72
50x50x1.60	50	50	1.60	2.92	320.00	117.63	117.63	19.49	19.49	4.86	4.86
63x63x0.80	63	63	0.80	1.87	201.60	126.94	126.94	25.25	25.25	4.08	4.08
63x63x1.00	63	63	1.00	2.34	252.00	156.72	156.72	25.14	25.14	5.06	5.06
63x63x1.20	63	63	1.20	2.81	302.40	185.74	185.74	25.02	25.02	6.01	6.01
63x63x1.60	63	63	1.60	3.81	403.20	241.54	241.54	24.79	24.79	7.87	7.87

Outside Dimension : ± 1mm Angular Tolerance : ± 2° max Tolerances of length : ± 5mm

Gutter



Gutter Section Properties

Gutter Section	Exact Dimension				Weight w kg/m	Area A mm ²	Second Moment of Area		Radius of Gyration		Elastic Modulus	
	Depth D mm	Top B1 mm	Base B2 mm	Thickness t mm			I _x 10 ³ mm ⁴	I _y 10 ³ mm ⁴	r _x mm	r _y mm	Z _x 10 ³ mm ³	Z _y 10 ³ mm ³
Gutter 230 x 100 x 1.6	100	230	115	1.60	5.49	648.00	733.01	3556.82	34.74	76.53	13.22	32.55
Gutter 230 x 100 x 2.0	100	230	115	2.00	6.87	810.00	919.49	4400.24	34.80	76.13	16.28	40.43

Outside Dimension : ± 1mm Angular Tolerance : ± 2° max Tolerances of length : ± 5mm

UNI-INTERLOCKED Steel Green House System Products



SHS 25 X 25



SHS 50 X 50



25 X 25 JOINT PIPE



50 X 50 JOINT PIPE



BASE SUPPORT



VALLEY GUTTER



UNI-PLASTIC CLIP



1 INCH CLIP



CLAMP WIRE



GUTTER CLIP