



Product Catalogue

# PREMIUM ROOF & WALL

Premium Hi-Rib 40 PU Roofing

Premium Clip Roofing

Premium PU Wall Panel



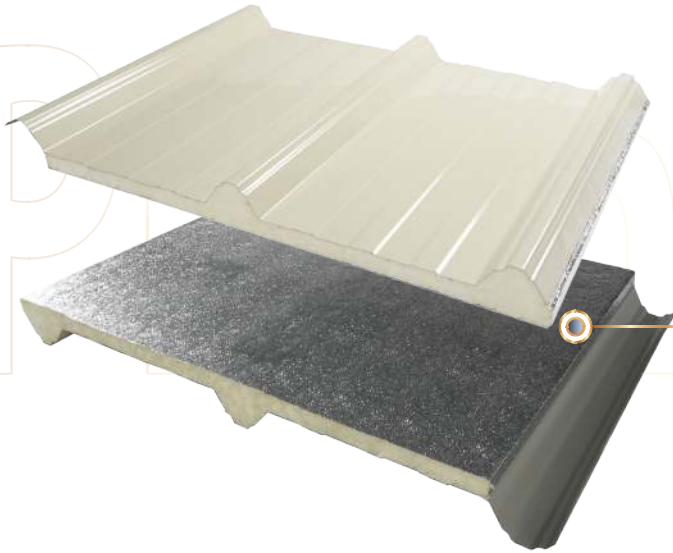




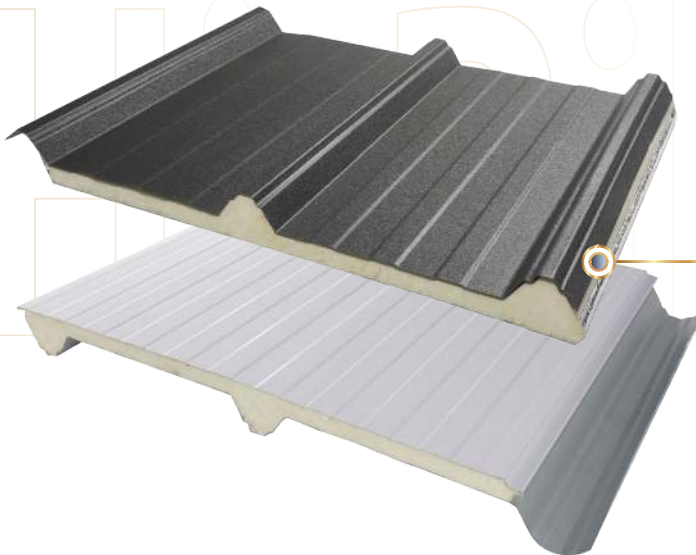
**Ledex Premium™ Hi-Rib 40 PU Roofing** is made of high tensile steel with 40mm deep trapezoidal profile. It is able to fix down to roof of 1° pitch without any leakage. This is a premium roof profile allowing larger span and lesser fasteners that will allow less installation time. It is water-resistant and is processed using high density Close Cell Polyurethane.

Hence, it is more practical and affordable for a perfect budget consideration. The lapping and screws are concealed using clip cover same as roof color to create seamless finishes and prevent any screw rusting and warranty for leakage free and low maintenance. Both of the profiles are very high heat-resistant and very durable. Due to its total strength quality, it is harder to be damaged during transportation. It also provides a very good sound absorption that is suitable for office, hypermarket and residential use.

# Ledex Premium™ Hi-Rib 40 PU Roofing



Ledex Premium™ Hi-Rib 40 PU Foam Roofing

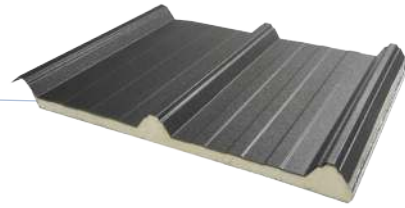
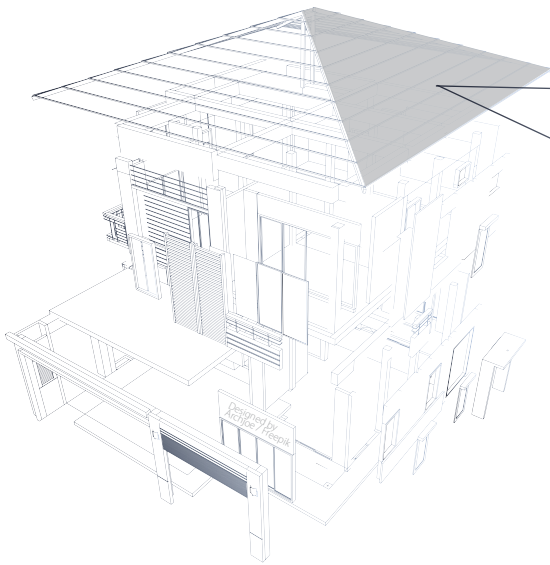


Ledex Premium™ Hi-Rib 40 PU Metal Roofing

## WHERE CAN IT APPLY

- Factory
- Industrial Roof
- Commercial & Industrial Buildings
- Institution Buildings
- Agriculture Mega Buildings
- Facility Roof Extensions
- Low Pitch Residential

# Ledex Premium™ Hi-Rib 40 PU Roofing



**Ledex Premium™ Hi-Rib 40 PU Metal Roofing**



**Ledex Premium™ Hi-Rib 40 PU Foam Roofing**

## BQ Specification

**Ledex Premium™ Hi-Rib 40 PU Metal 50 mm, 0.40 mm TCT**



### Details to be mentioned in BQ specification:

1. Brand
2. Profile
3. Thickness
4. Material
5. Coating
6. Colour
7. Roof Pitch
8. Warranty



Certified Bomba with Class 'O' Certificate

### Material warranty on perforated by corrosion:

- Up to 10 years – Bluescope Zacs Cool AZ90;
  - Bluescope Zacs Natural AZ90
- Up to 15 years – Bluescope Prima Maju AZ100
- Up to 25 years – Bluescope Zinalume AZ150;
  - Bluescope Clean Colorbond AZ150,
  - Vermoe AZ150
- Up to 30 years – Bluescope Zinalume AZ200;
  - Bluescope Clean Colorbond Ultra AZ200

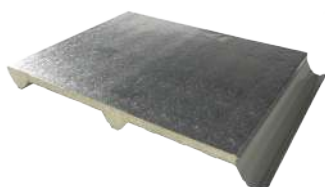
\*Term & condition apply

### Example

Design, fabricate and install “Ledex Premium™ Hi Rib 40 Pu Metal 50 mm” 0.40 mm TCT In Bluescope Prima Maju AZ100 with approved color ; laid to fall at minimum 1° and fixed to Ledex C Purlin (measured separately) including fixing accessories, capping, flashing and all necessary works; all in accordance with Architect’s drawing, manufacturer’s instruction and specification.

(Up to 15 years warranty on perforated by corrosion)

#### Polyurethane (PU) Foam



3 layers of prepainted metal sheet, rigid Polyurethane (PU) foam with inner layer fire-retardant aluminium foil 0.22mm lamination

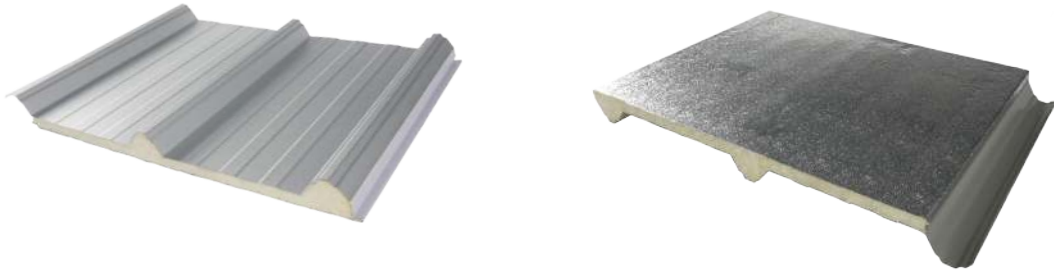
#### Polyurethane (PU) Metal



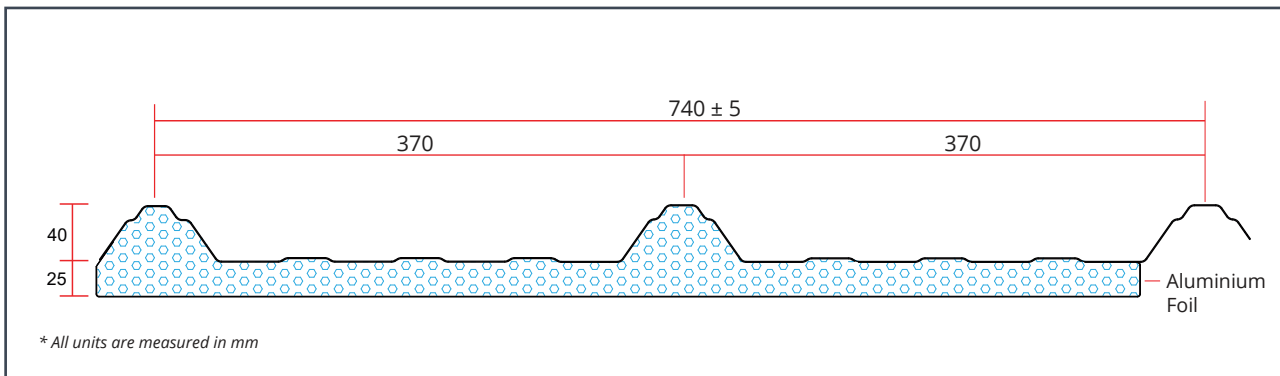
Insulation system made up of 3 layers, which consisted a layer of rigid Polyurethane (PU) foam in between two prepainted metal sheet



# LEDEX PREMIUM™ HI-RIB 40 PU FOAM ROOFING



## Specification Drawing



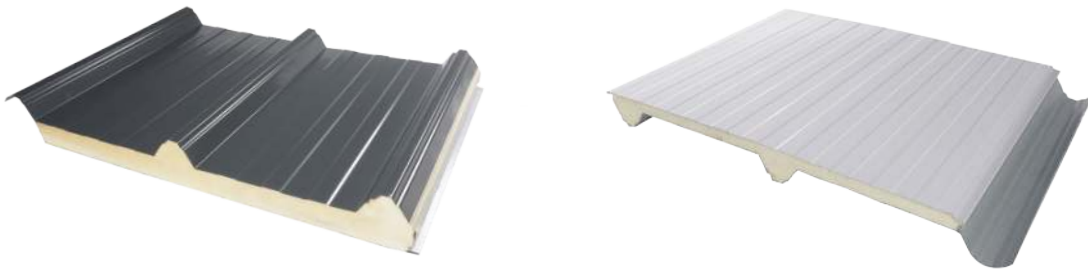
## Product Specification

Profile	Ledex Premium™ Hi-Rib 40 PU Foam Roofing
Effective Width	740 mm
Depth of Rib	40 mm
Steel Grade	Zincalume G300 Steel, Zincalume G550 Steel
Outer Layer Finishing	Zacs, Zacs Cool, Zacs Natural, Prima Maju, Zincalume, Vermoe, Colorbond
Inner Layer Finishing	Aluminium Foil 0.22 mm
PU Foam Thickness	25 mm
Minimum Roof Pitch	1° Sheet without end lap
Tolerance	Length ± 3 mm, Width ± 5 mm, Metal Thickness ± 0.03 mm, PU Thickness ± 2 mm

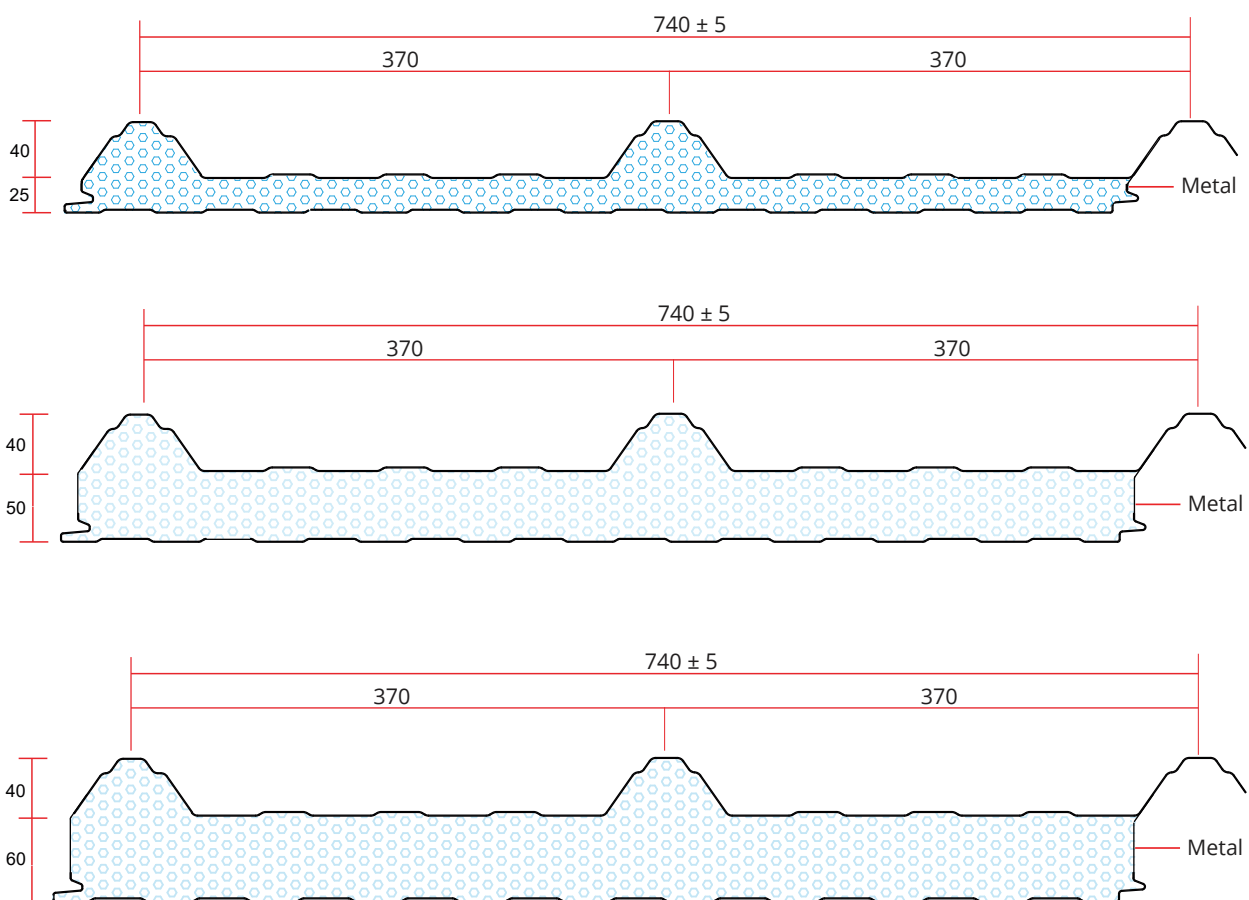
## Thickness Available

Thickness BMT (mm)	Thickness TCT (mm)	PU Foam 25mm(kg/m)
0.30	0.36	3.30
0.35	0.40	3.70
0.40	0.45	4.00
0.42	0.47	4.10
0.48	0.53	4.60

# LEDEX PREMIUM™ HI-RIB 40 PU METAL ROOFING



## Specification Drawing



\* All units are measured in mm

Ledex Premium™ Hi-Rib 40 PU Metal Roofing is available in 3 different thicknesses, which are 25mm, 50mm and 60mm. Each thickness has their own performance on insulation and sound absorption, which is suitable for office, commercial and residential use.



## Product Specification

Profile	Ledex Premium™ Hi-Rib 40 PU Metal Roofing
Effective Width	740 mm
Depth of Rib	40 mm
Steel Grade	Zincalume G300 Steel, Zincalume G550 Steel
Outer Layer Finishing	Zacs, Zacs Cool, Zacs Natural, Prima Maju, Zincalume, Vermoe, Colorbond
Inner Layer Finishing	Metal 0.30 mm
PU Foam Thickness	25 mm, 50 mm, 60mm
Minimum Roof Pitch	1° Sheet without end lap
Tolerance	Length $\pm$ 3 mm, Width $\pm$ 5 mm, Metal Thickness $\pm$ 0.03 mm, PU Thickness $\pm$ 2 mm

## Thickness Available

Thickness BMT (mm)	Thickness TCT (mm)	PU Metal 25mm (kg/m)	PU Metal 50mm (kg/m)	PU Metal 60mm (kg/m)
0.30	0.36	5.20	6.10	6.40
0.35	0.40	5.60	6.50	6.80
0.40	0.45	5.90	6.80	7.10
0.42	0.47	6.00	6.90	7.20
0.48	0.53	6.50	7.40	7.70



## Wind Capacity Load Span

Thickness BMT (mm)	Thickness TCT (mm)	Distributed Load (kN/M2) Span (Length)					
		0.6	0.9	1.2	1.5	1.8	2.1
0.35	0.40	20.12	8.93	5.00	3.20	2.20	1.60
0.40	0.45	22.12	9.80	5.50	3.50	2.42	1.77
0.42	0.47	22.78	10.09	5.66	3.67	2.54	1.86
0.48	0.53	30.51	14.19	7.97	4.08	3.52	2.56

## Recommended Maximum Roof Length (M)

Rainfall (mm/h)	Slope in Degree				
	1°	2°	3°	5°	7°
250	147	190	224	274	328
300	124	161	187	231	279
400	96	112	136	173	209
500	76	96	113	140	167

## Maximum Recommended Spacing of Supports

### Ledex Premium™ Hi-Rib 40 PU Foam & PU Metal (25 mm)

Thickness BMT (mm)	Thickness TCT (mm)	Roofing		Wall		Free Cantilever (mm)
		Internal Span (mm)	End Span (mm)	Internal Span (mm)	End Span (mm)	
0.35	0.40	1650	1450	1900	1750	150
0.40	0.45	1700	1500	1950	1800	150
0.42	0.47	1750	1550	2000	1850	180
0.48	0.53	1900	1700	2200	1950	250

### Ledex Premium™ Hi-Rib 40 PU Metal (50 mm)

Thickness BMT (mm)	Thickness TCT (mm)	Roofing		Wall		Free Cantilever (mm)
		Internal Span (mm)	End Span (mm)	Internal Span (mm)	End Span (mm)	
0.35	0.40	1800	1600	2100	1900	200
0.40	0.45	2150	1750	2450	2150	250
0.42	0.47	2200	1800	2500	2200	250
0.48	0.53	2400	2000	2800	2500	300



## Ledex Premium™ Hi-Rib 40 PU Metal (60 mm)

Thickness BMT (mm)	Thickness TCT (mm)	Roofing		Wall		Free Cantilever (mm)
		Internal Span (mm)	End Span (mm)	Internal Span (mm)	End Span (mm)	
0.35	0.40	1850	1650	2150	1950	200
0.40	0.45	2200	1800	2500	2200	250
0.42	0.47	2300	1900	2600	2100	300
0.48	0.53	2500	2100	2900	2600	350

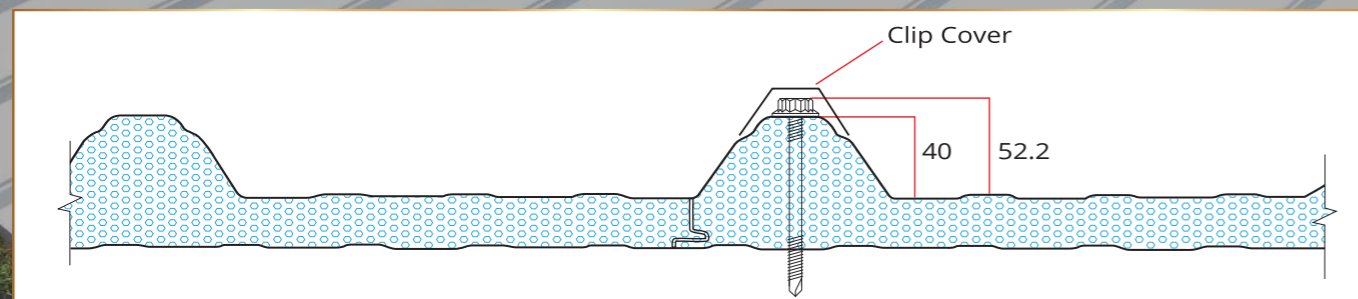
## Insulation Properties

Item	Specifications		
Type of Insulation	Rigid Polyurethane(PUR) / Polyisocyanurate(PIR)		
Foam Density	38 kg/m <sup>3</sup> - 42 kg/m <sup>3</sup> / 45 kg/m <sup>3</sup> - 50 kg/m <sup>3</sup>		
Insulation Grade	Non CFC, Non HCFC		
K Value (Thermal Conductivity)	0.024 w/mk		
Thickness of Insulation	25 mm	50 mm	60 mm
U Value (Thermal Transmittance)	0.96 w/m <sup>2</sup> k	0.48w/m <sup>2</sup> k	0.40 w/m <sup>2</sup> k
R Value (Thermal Resistance)	1.04 w/mk	2.08 w/mk	2.50 w/mk





# INSTALLATION METHOD



## 3 Simple Steps to Install

- 1 Measure the length and fix the hidden clip
- 2 Fix the clip cover on the rib
- 3 Installation completed

## ACCESSORIES: HIDDEN CLIP & CLIP COVER

### Hidden Clip Position Joint

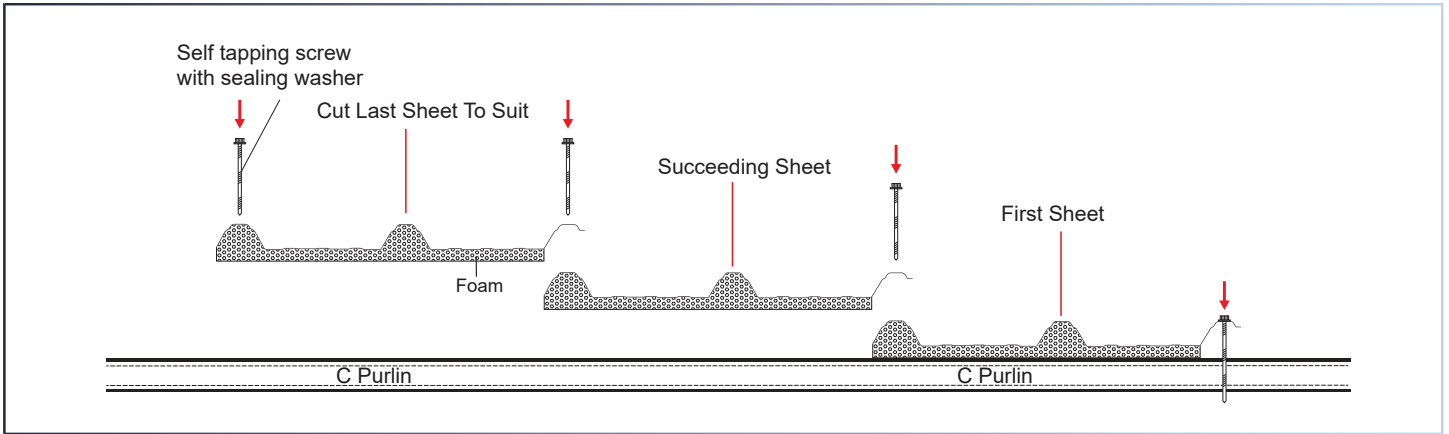


### Clip Cover Fixed





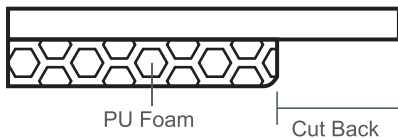
# INSTALLATION



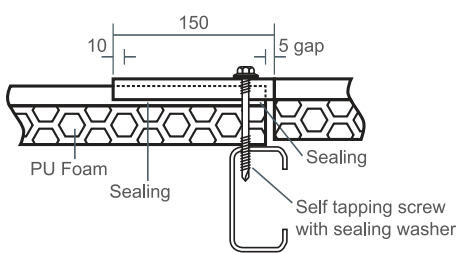
## Panel End Cut Back

For installation of insulated metal roof, the following measures are recommended :

- Cut back at end laps - 6 inch (150 mm)
- Minimum setback 6 inch (150 mm)

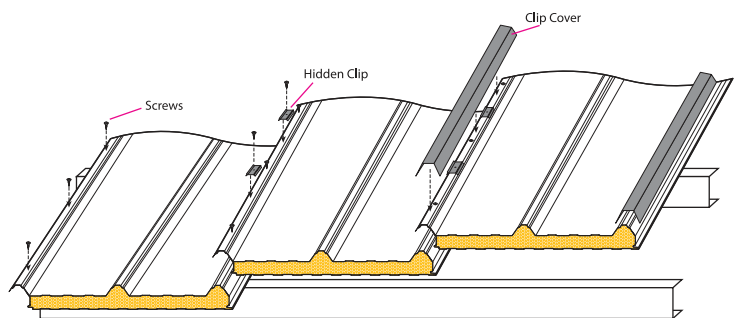
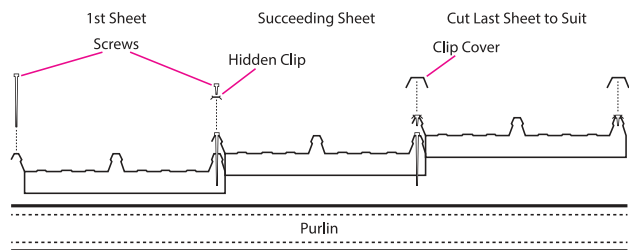


## Panel End Lap



## Concealed Fixing Concept

With concealed fixing, screws are covered with clip covers, hence prevent exposing screws to corrosion. It is less likely to have leaks, minimising maintenance.



# PROJECT REFERENCE



Project Title: Thye Heng Engineering (Warehouse)  
Location : Batu Kawan, Penang



Project Title: Majlis Perbandaran Sungai Petani  
Location : Sungai Petani, Kedah



Project Title: KEDA Langkawi Light Industry  
Location : Langkawi, Kedah



# PROJECT REFERENCES



Project Title: UWC Industrial  
Location : Bandar Cassia, Penang



Project Title: Penang Hill Platform  
Location : Georgetown, Penang



Project Title: River Park  
Location : Auto City, Penang



**Ledex Premium™ Clip Roofing** is designed to have an interlock action rib for positive concealed clip fixing, that is roll-formed precisely from genuine high tensile G550 Zincalume steel. It is available in a range of Prima Maju, Clean Colorbond and Zincalume by BlueScope Steel.

Ledex Premium™ Clip 670 & 710 Roofing disperses rainwater quickly and efficiently to the outer perimeters of the roof, thus making it an excellent choice for areas with severe rainfall intensity in Asia. Ledex Premium™ Clip 670 & 710 Roofing remain as one of the most trusted and reliable products since our incorporations.

Designed to perform at a minimum recommended roof pitch of 2° (1 in 29), Ledex Premium™ Clip 670 & 710 Roofing provide a lightweight but extremely strong water-proof roofing system with its wide minimum 188 mm fluted pans and high rib 41 mm and 35 mm design.





# Ledex Premium™ Clip Roofing



Ledex Premium™ Clip 670 Roofing

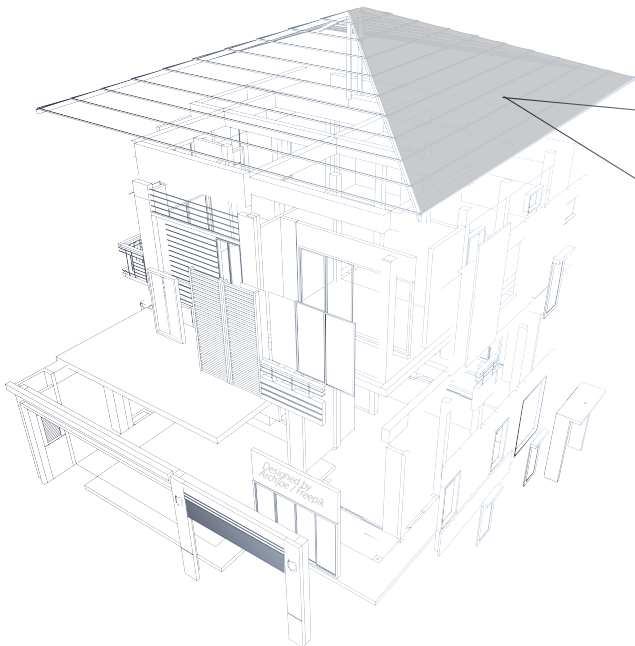


Ledex Premium™ Clip 710 Roofing

## WHERE CAN IT APPLY

- Factory
- Commercial Building
- Sports Usage Facilities
- Institution Buildings
- Shoplots
- Warehouses

# Ledex Premium™ Clip Roofing



Ledex Premium™ Clip Roofing



Fixing Clip

## BQ Specification

Ledex Premium™ Clip 670 Roofing 0.53 mm TCT

Brand

Profile

Material Thickness

### Details to be mentioned in BQ specification:

1. Brand
2. Profile
3. Thickness
4. Material
5. Coating
6. Colour
7. Roof Pitch
8. Warranty

### Example

Design, fabricate and install "Ledex Premium™ Clip 670 Roofing" 0.53 mm TCT In Bluescope Zacs Cool AZ90 with approved color ; laid to fall at minimum 1° and fixed to Ledex® C Purlin (measured separately) including fixing accessories, capping, flashing and all necessary works; all in accordance with Architect's drawing, manufacturer's instruction and specification.

(Up to 10 years warranty on perforated by corrosion)

### Material warranty on perforated by corrosion:

- Up to 10 years – Bluescope Zacs Cool AZ90;  
– Bluescope Zacs Natural AZ90
- Up to 15 years – Bluescope Prima Maju AZ100
- Up to 25 years – Bluescope Zinalume AZ150;  
– Bluescope Clean Colorbond AZ150  
– Vermoe AZ150
- Up to 30 years – Bluescope Zinalume Ultra AZ200;  
– Bluescope Clean Colorbond Ultra AZ200

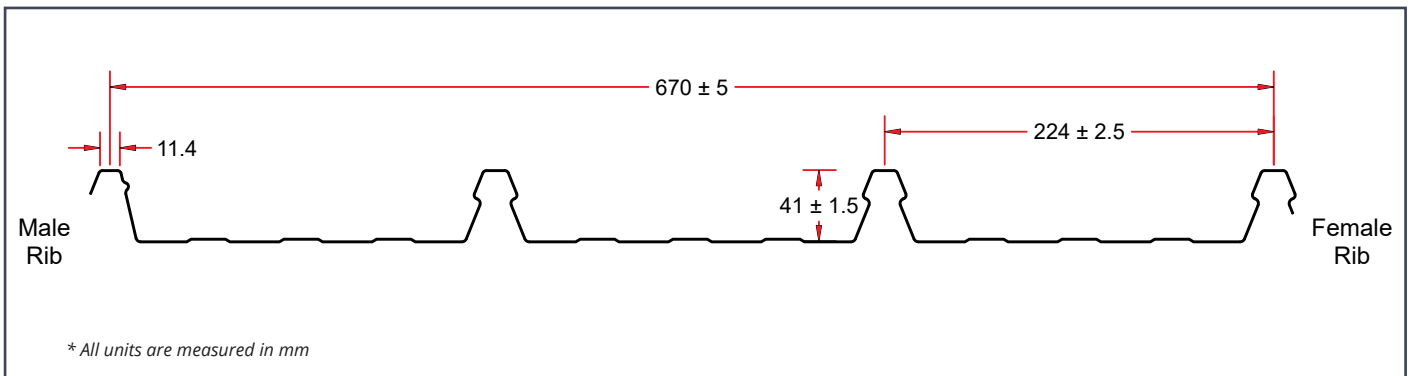
\*Term & condition apply



# LEDEX PREMIUM™ CLIP 670 ROOFING



## Specification Drawing



## Product Specification

Profile	Ledex Premium™ Clip 670 Roofing
Effective Width	670 mm
Depth of Rib	41 mm
Steel Grade	Zincalume G550 Steel
Finishing	Prima Maju, Zincalume, Vermoe, Colorbond
Thickness	0.45 mm, 0.47 mm, 0.53 mm
Minimum Roof Pitch	2° Sheet without end lap
Tolerance	Length ± 3 mm, Width ± 5 mm, Metal Thickness ± 0.03 mm

## Thickness Available

Finishing	Prima Maju		Zincalume		Vermoe		Colorbond	
	0.47	0.53	0.47	0.53	0.47	0.53	0.47	0.53
Thickness TCT (mm)	0.47	0.53	0.47	0.53	0.47	0.53	0.47	0.53
Mass per Unit Area (kg/m <sup>2</sup> )	4.76	5.40	4.73	5.37	4.81	5.45	4.81	5.45
Mass per Unit Length (kg/mtr)	3.19	3.62	3.17	3.60	3.22	3.65	3.22	3.65
Coverage (m <sup>2</sup> / tonne)	210.08	185.19	211.42	186.22	207.90	183.49	207.90	183.49

## Wind Capacity Load Span

Thickness BMT (mm)	Thickness TCT (mm)	Distributed Load (kN/M <sup>2</sup> )					
		0.6	0.9	1.2	1.5	1.8	2.1
0.40	0.45	14.83	4.37	1.83	0.92	0.52	0.31
0.42	0.47	15.57	4.59	1.92	0.96	0.54	0.33
0.48	0.53	17.80	5.24	2.19	1.10	0.62	0.38

## Recommended Maximum Roof Length (M)

Rainfall (mm/h)	Slope in Degree			
	2°	3°	5°	7.5°
250	190	224	274	328
300	161	187	231	279
400	112	136	173	209
500	96	113	140	167

## Maximum Recommended Spacing of Supports

Thickness BMT (mm)	Thickness TCT (mm)	Roofing		Wall		Free Cantilever (mm)
		Internal Span (mm)	End Span (mm)	Internal Span (mm)	End Span (mm)	
0.42	0.47	2200	1800	2500	2200	250
0.48	0.53	2400	2200	2800	2500	300

## Load Capacity of Ledex Premium™ Clip Roofing Over Continuous Beam

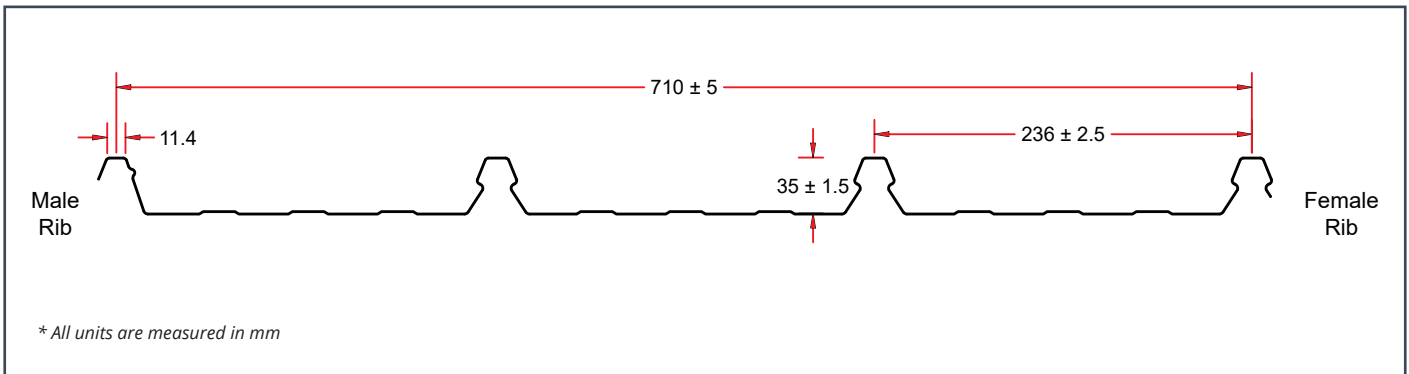
Thickness TCT (MM)	Span (m)	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.5
		0.47	Safe Load (kg/m <sup>2</sup> )	580	371	258	189	145	114
Deflection for above Load (kg/mm)	4		6	9	12	16	20	25	34
0.53	Safe Load (kg/m <sup>2</sup> )	662	424	294	216	166	131	106	78
	Deflection for above Load (kg/mm)	4	6	9	12	16	20	25	34



# LEDEX PREMIUM™ CLIP 710 ROOFING



## Specification Drawing



## Product Specification

Profile	Ledex Premium™ Clip 710 Roofing
Effective Width	710 mm
Depth of Rib	35 mm
Steel Grade	Zincalume G550 Steel
Finishing	Prima Maju, Zincalume, Vermoe, Colorbond
Thickness	0.45 mm, 0.47mm, 0.53 mm
Minimum Roof Pitch	2° Sheet without end lap
Tolerance	Length ± 3 mm, Width ± 5 mm, Metal Thickness ± 0.03 mm

## Thickness Available

Finishing	Prima Maju		Zincalume		Vermoe		Colorbond	
	0.47	0.53	0.47	0.53	0.47	0.53	0.47	0.53
Thickness TCT (mm)								
Mass per Unit Area (kg/m <sup>2</sup> )	4.49	5.10	4.46	5.07	4.54	5.15	4.54	5.15
Mass per Unit Length (kg/mtr)	3.19	3.62	3.17	3.06	3.22	3.65	3.22	3.65
Coverage (m <sup>2</sup> / tonne)	222.72	196.08	224.22	197.24	220.26	194.17	220.26	194.17

## Wind Capacity Load Span

Thickness BMT (mm)	Thickness TCT (mm)	Distributed Load (kN/M <sup>2</sup> )					
		0.6	0.9	1.2	1.5	1.8	2.1
0.40	0.45	10.55	3.10	1.29	0.64	0.36	0.21
0.42	0.47	11.08	3.26	1.35	0.68	0.38	0.22
0.48	0.53	12.67	3.73	1.55	0.77	0.43	0.26

## Recommended Maximum Roof Length (M)

Rainfall (mm/h)	Slope in Degree			
	2°	3°	5°	7.5°
250	139	163	199	238
300	117	135	167	203
400	81	98	125	152
500	70	82	101	121

## Maximum Recommended Spacing of Supports

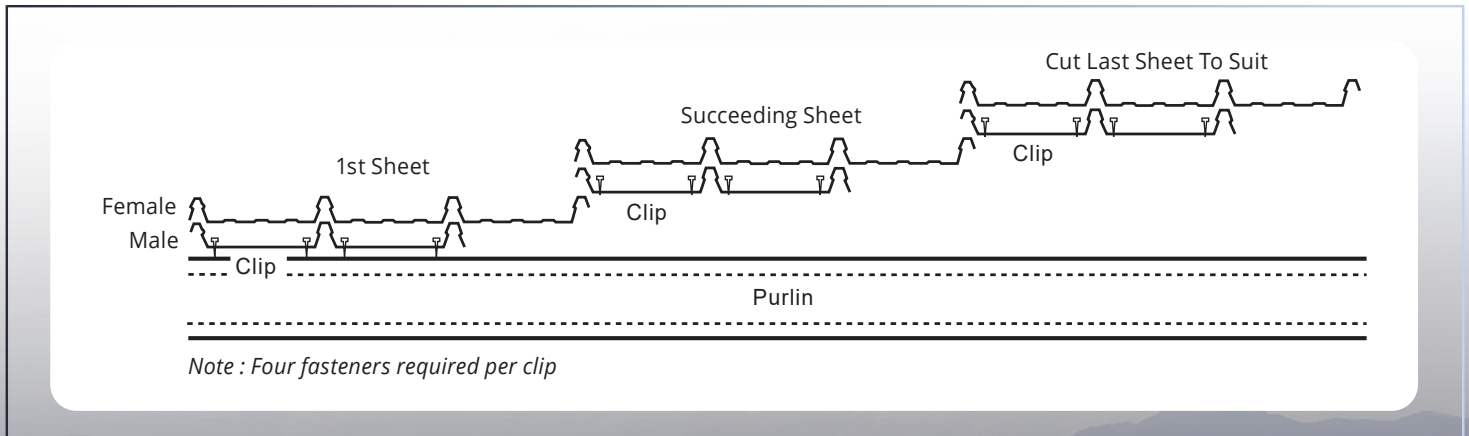
Thickness BMT (mm)	Thickness TCT (mm)	Roofing		Wall		Free Cantilever (mm)
		Internal Span (mm)	End Span (mm)	Internal Span (mm)	End Span (mm)	
0.42	0.47	1800	1600	2200	2000	200
0.48	0.53	2000	1800	2400	2200	250

## Load Capacity of Ledex Premium™ Clip Roofing Over Continuous Beam

Thickness TCT (MM)	Span (m)	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.5
		0.47	Safe Load (kg/m <sup>2</sup> )	550	352	245	180	138	108
Deflection for above Load (kg/mm)	4		6	9	12	16	20	25	34
0.53	Safe Load (kg/m <sup>2</sup> )	627	401	279	205	157	123	100	74
	Deflection for above Load (kg/mm)	4	6	9	12	16	20	25	34



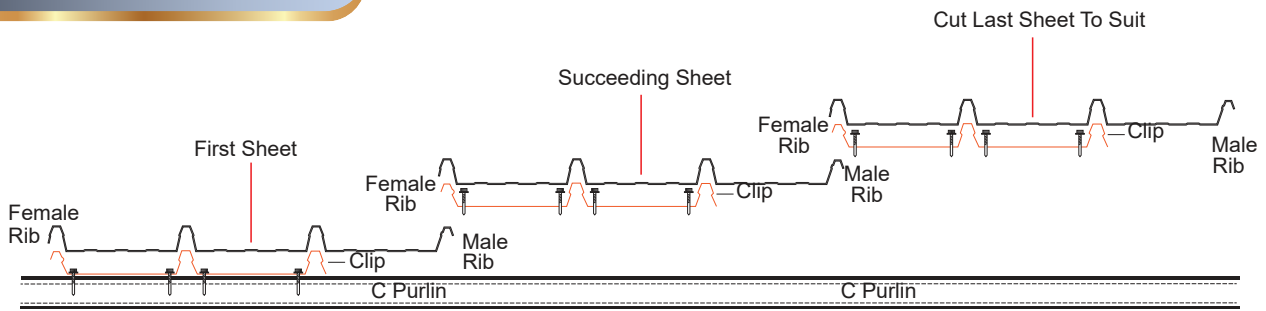
# THE CONCEALED FIXING CONCEPT



## Features of Concealed-fixed Steel Cladding

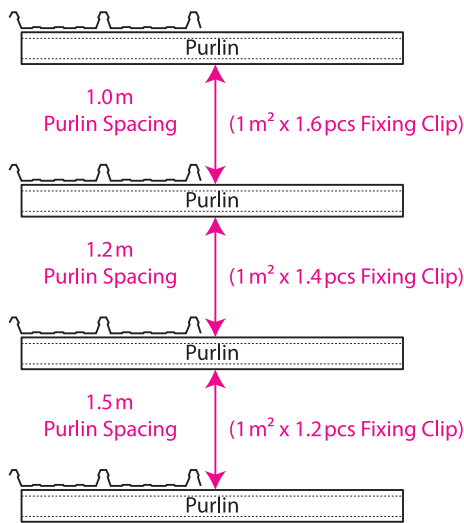
- Excellent water-carrying capacity, as well as structural strength, ease of erection, dust and watertightness, and the versatility to be cranked.
- Suitable for use in most climatic conditions.
- Not only eliminates leaking through and rusting around the fastener but also gives safety, stability and easy installation.
- Optional roll on-site for long length movable roll forming available at extra cost.
- Bold rib makes strong visual statement.
- Transverse fluting adds to spanning performance.
- Roll-formed precisely from genuine high tensile G550 Zincalume steel for improved side lap and spanning characteristics.
- Minimum recommended roof pitch of 2° (1 in 29), and vertically for cladding.
- Fixed with each other by linking together by means of concealed clips fastened to the top of the purlins, and the clips allow expansion and contraction of the sheets without straining the securing points.

# INSTALLATION



Note : Four fasteners required per clip

# CALCULATION OF FIXING CLIP



**FIXING CLIP QUANTITY CALCULATION TABLE**

Clip 670 Length (ft)	Purlin Spacing (mm)		
	1000	1200	1500
10	2.10	1.70	1.50
20	1.90	1.50	1.20
30	1.80	1.40	1.10
40	1.80	1.40	1.10
50	1.70	1.30	1.10
60	1.70	1.30	1.10
70	1.70	1.30	1.10
80	1.70	1.30	1.00
90	1.70	1.30	1.00
100	1.70	1.30	1.00
110	1.70	1.30	1.00
120	1.70	1.30	1.00
130	1.70	1.30	1.00
140	1.70	1.30	1.00
150	1.70	1.30	1.00
160	1.70	1.30	1.00
170	1.70	1.30	1.00
180	1.70	1.30	1.00
190	1.70	1.30	1.00
200	1.70	1.30	1.00

**FIXING CLIP QUANTITY CALCULATION TABLE**

Clip 710 Length (ft)	Purlin Spacing (mm)		
	1000	1200	1500
10	2.00	1.60	1.40
20	1.80	1.40	1.20
30	1.70	1.30	1.10
40	1.70	1.30	1.00
50	1.60	1.30	1.00
60	1.60	1.20	1.00
70	1.60	1.20	1.00
80	1.60	1.20	1.00
90	1.60	1.20	1.00
100	1.60	1.20	1.00
110	1.60	1.20	1.00
120	1.60	1.20	1.00
130	1.60	1.20	1.00
140	1.60	1.20	1.00
150	1.60	1.20	1.00
160	1.60	1.20	1.00
170	1.60	1.20	1.00
180	1.60	1.20	1.00
190	1.60	1.20	1.00
200	1.60	1.20	1.00





# ROLL ON SITE FORMING



- When it comes to roof, fewer seams and simpler delivery of materials to the rooftop make for faster installation and longer lasting product.
- Minimal storage problem.
- No expensive shipping and crating of long panels. Coils are delivered right to the jobsite.
- No panel shipping damage and delays are minimal.
- Less labor and waste in terms of packing, transport and storage.
- The ability to work on your own schedule, not the factory's.
- The ability to form perfect panels to any length.

### Site Mobilise

We have vast experience in catering to our customer's high requirements due to our flexibility in moving our machine to the construction site.

### Site Forming

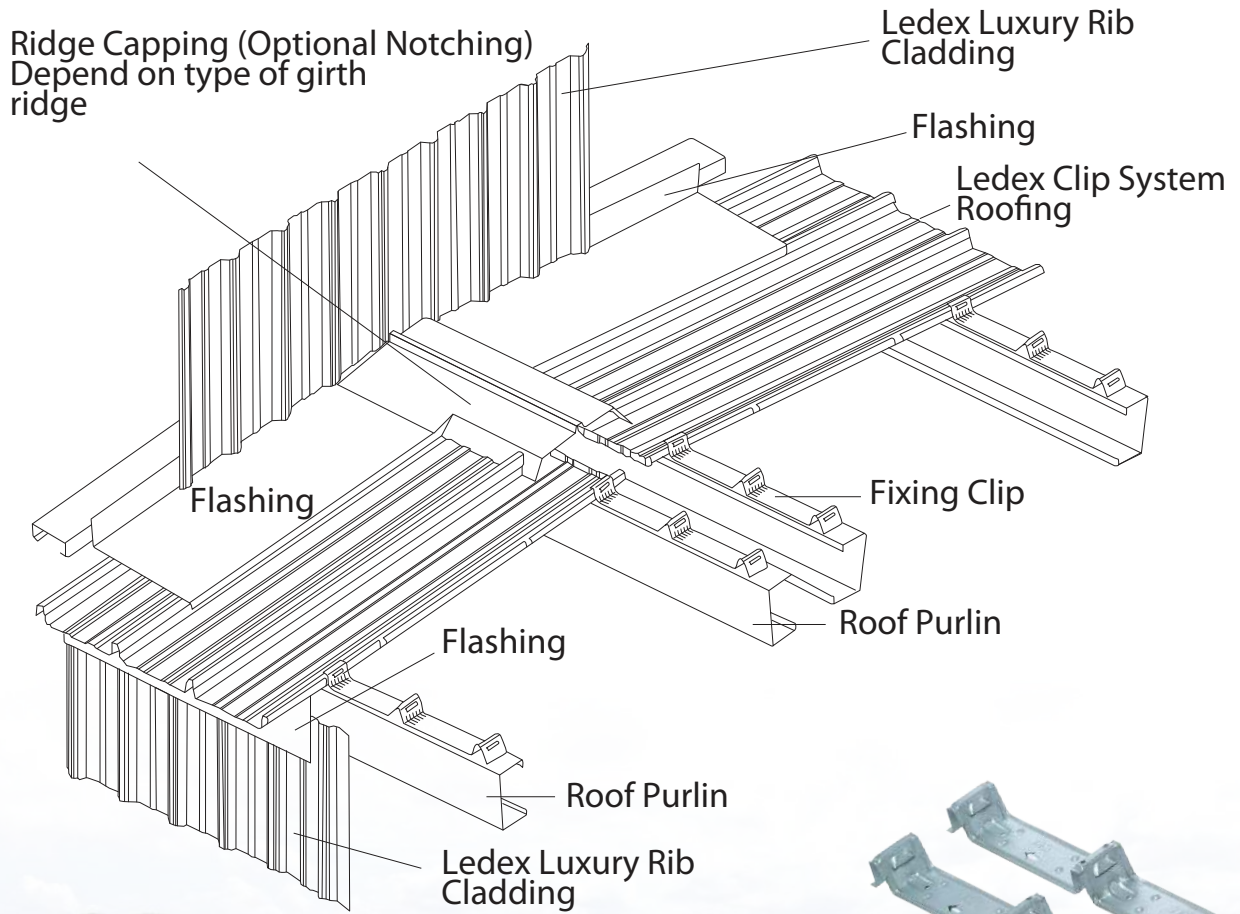
For customer who requires long roofing panel, we will do the production on site, by making the impossible, possible.

### Forming

We are ready to provide extra workforce to support customer on site.



## Cladding Assembly



Fixing Clip





# PROJECT REFERENCES



Project Title: Hijauan Residence  
Location : Jawi, Penang



Project Title: C Mart  
Location : Padang Serai, Kedah



Project Title: Hotayi Electronic (Phase 2)  
Location : Batu Kawan, Penang



# PROJECT REFERENCE



Project Title: C Mart Pasaraya  
Location : Nibong Tebal, Penang



Project Title: Ultra Clean Technology Factory  
Location : Batu Kawan, Penang

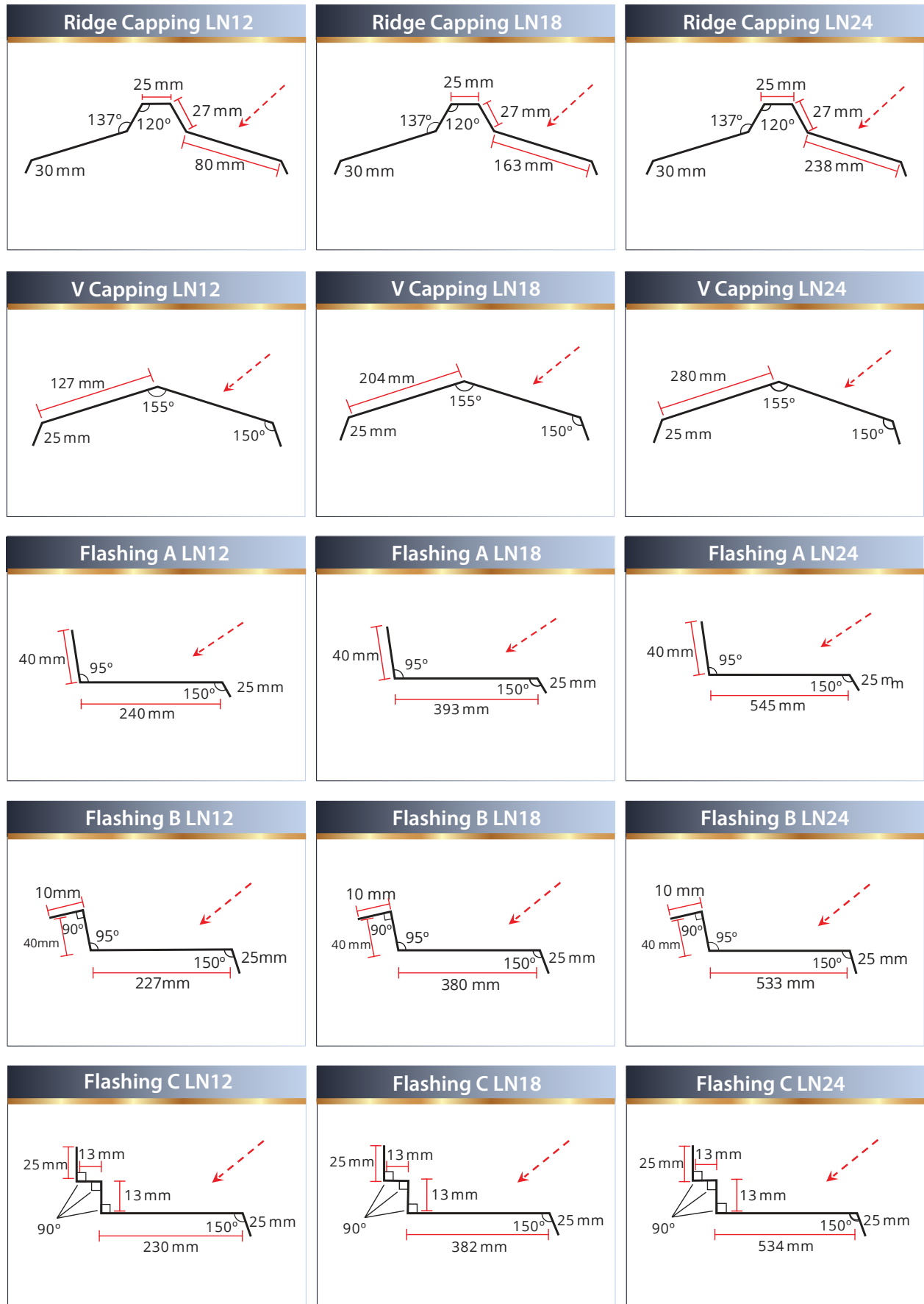


Project Title: Lotus's  
Location : Sungai Petani, Kedah



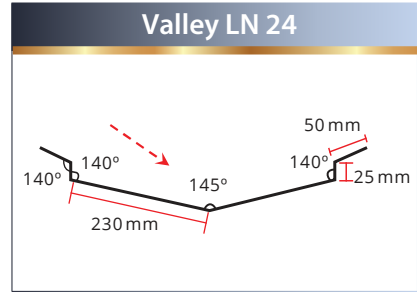
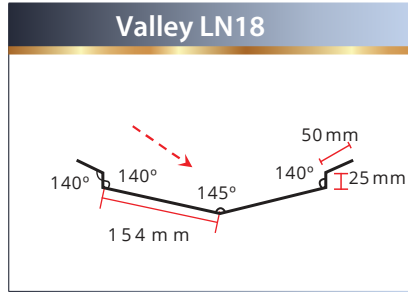
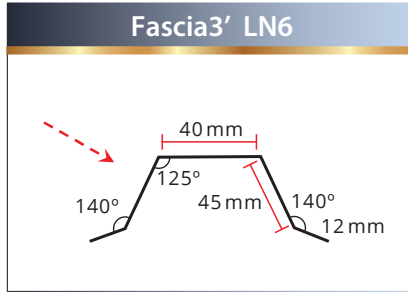
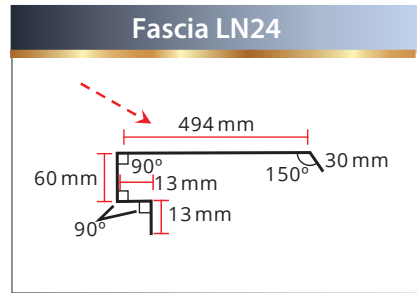
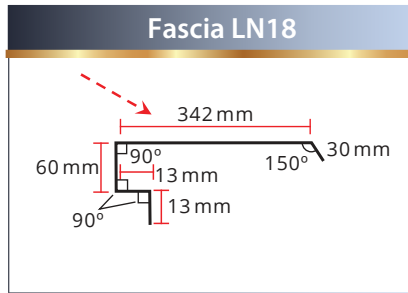
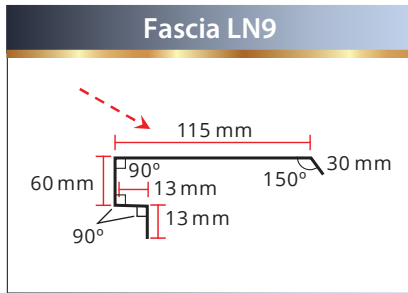
# CAPPING ACCESSORIES

## Standard Flashing / Capping

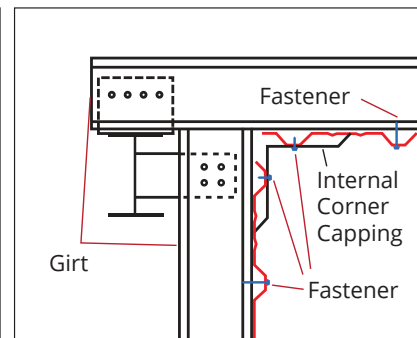
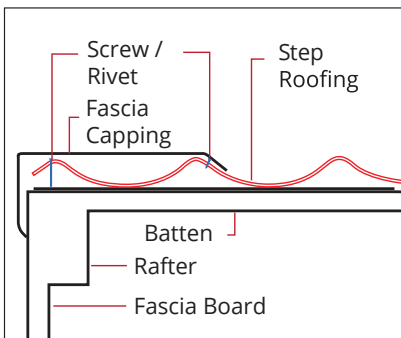
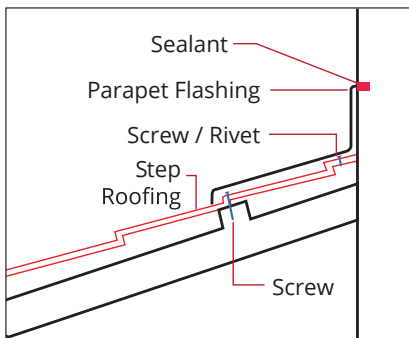
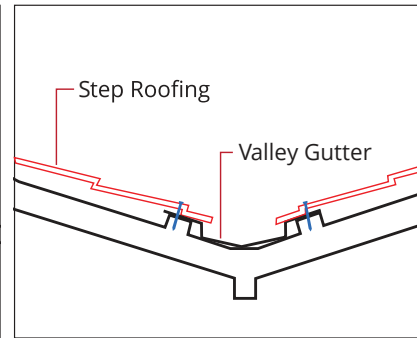
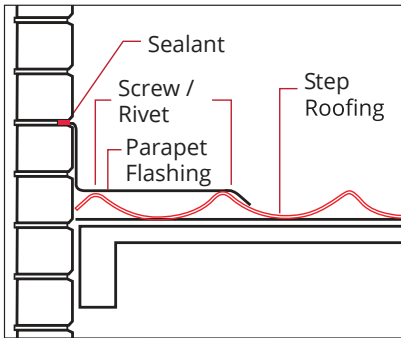
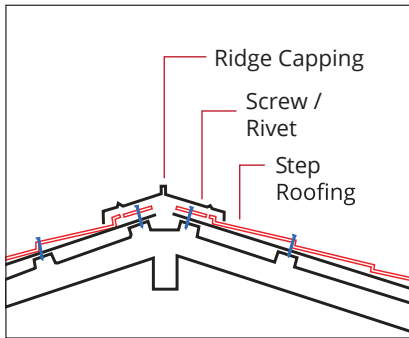


# CAPPING ACCESSORIES

## Standard Flashing / Capping



# INSTALLATION





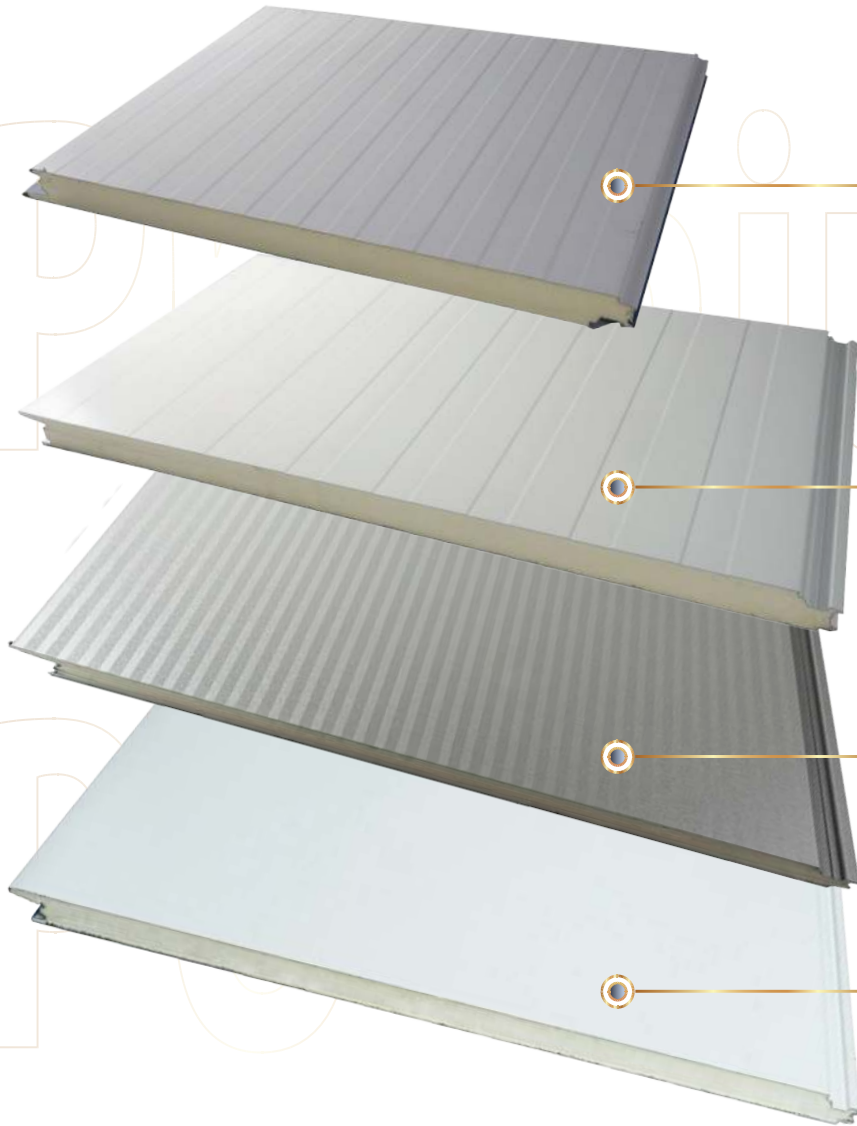
**Ledex Premium™ PU Wall Panel and PU Wall Panel Plus** is a premium insulated profile made up of prepainted metal sheet under steel grade Zincalume G300 Steel, polyurethane foam and anti-scratch protected film. It is a single component insulated metal panel product which will decrease the time of installation. The insulated profile is water-resistant and is processed using high density Close Cell Polyurethane consisted of 40 mm and 50 mm foam thickness that helps to achieve thermal insulation, reduce heat and noise transfer.

Both of the profiles utilize a string of automated assembly line. This cutting edge technology uses sandwich concept by injecting high pressure of mixed chemical forming a rigid polyurethane foam. It is cladded on moving metal sheet panels placed on the upper and lower section. Lastly, the finished products are cut to length and send to auto stacking station for packing. The mixed chemical used, also known as foaming agent, is eco-friendly.

**Ledex Premium™ PU Wall Panel and Ledex Premium™ PU Wall Panel Plus** utilizes a hidden fix joint to prevent rusting aesthetic look in the long run. This wall panel comes in variety of colors, ideally used in commercial partition and cold room. **Ledex Premium™ PU Wall Panel Plus** is wider in width length. In terms of features and functionality, it is same as **Ledex Premium™ Wall Panel**.



# Ledex Premium™ PU Wall Panel



Ledex Premium™ PU Wall Panel

Ledex Premium™ PU Wall Panel Plus  
(Liner Surface)

Ledex Premium™ PU Wall Panel Plus  
(Micro Wave Surface)

Ledex Premium™ PU Wall Panel Plus  
(Plane Surface)

## WHERE CAN IT APPLY

### Commercial

Cold Room/ Clean Room  
Building Extension  
Food Processing Facility

Cooling Warehouse  
Inner Container  
Chill Store

Exclusive Meeting Room  
Agriculture & Livestock Facility

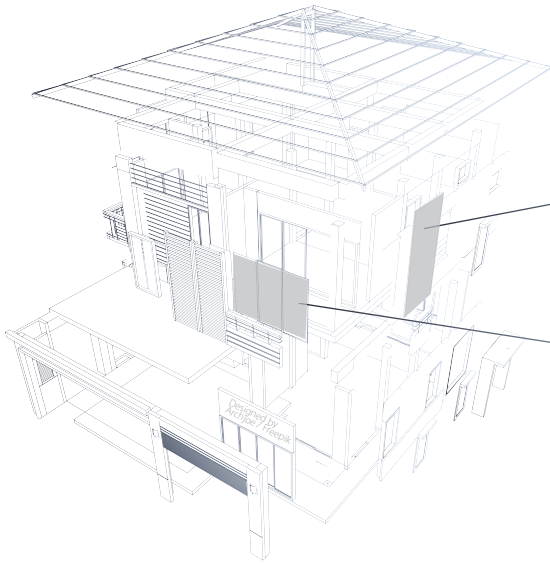
### Agro House

Cold Room/ Clean Room  
Building Extension  
Food Processing Facility

Breeder House  
Broiler House



# Ledex Premium™ PU Wall Panel

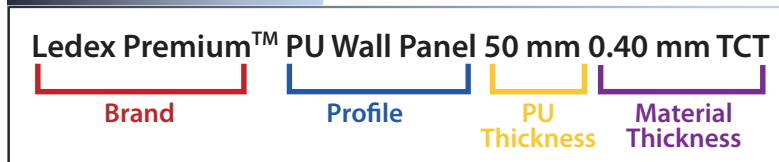


Ledex Premium™ PU Wall Panel



Ledex Premium™ PU Wall Panel Plus

## BQ Specification



### Details to be mentioned in BQ specification:

1. Brand
2. Profile
3. Thickness
4. Material
5. Coating
6. Colour
7. Warranty

### Example

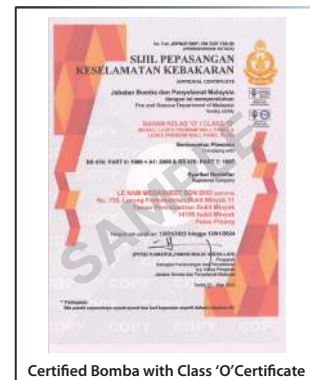
Design, fabricate and install "Ledex Premium™ PU Wall Panel 50 mm" 0.4 mm TCT In Bluescope Zacs Natural AZ90 with approved color ; to be fixed vertically or horizontally and come complete with necessary fittings and accessories; all in accordance with Architect's drawing, manufacturer's instruction and specification.

(Up to 10 years warranty on perforated by corrosion)

### Material warranty

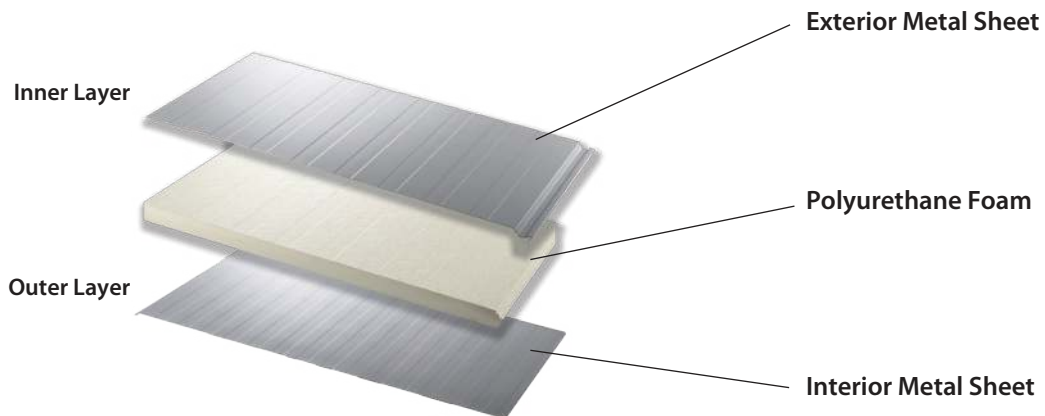
Up to 10 years on perforated by corrosion  
Up to 5 years on colour fading

\*Term & condition apply



Certified Bomba with Class 'O' Certificate

## 3 LAYERS OF WALL PANEL

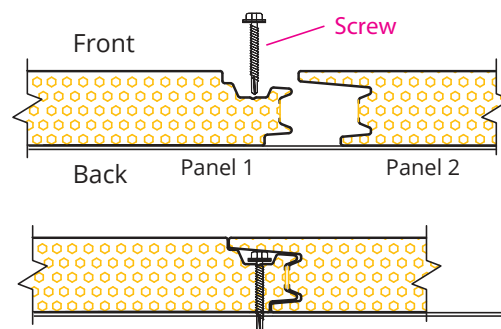


Ledex Premium™ PU Wall Panel and Ledex Premium™ PU Wall Panel Plus insulation system is made up of 3 layers, a layer of rigid Polyurethane (PU) foam in between prepainted metal sheet.

There are 2 types of Wall Panel Profile :

- Ledex Premium PU Wall Panel, effective width 770 mm
- Ledex Premium PU Wall Panel Plus, effective width 1070 mm

## CONCEALED SCREW CONCEPT



### It's Advantages

- Provide a clean and streamlined finish look
- Less susceptible to leaks
- Reduced wear and tear on the metal screws/fasteners
- Less maintenance in long run



# POLYURETHANE INSULATION FOAM & POLYISOCYANURATE INSULATION FOAM

Ledex Premium™ PU Wall Panel & PU Wall Panel Plus comes with 40 mm, 50 mm and 60 mm foam thickness, with two vital material options, which are PIR (Polyisocyanurate Insulation Foam) and PUR (Polyurethane Insulation Foam).

PUR and PIR are manufactured from the two components isocyanate (MDI) and polyol. This is a development of the classic polyurethane rigid foam that displays excellent thermal insulation properties.

## Polyisocyanurate Insulation Foam (PIR)

PIR foam is used to manage, control and resisting high temperature. It is categorized as isocyanurate that will decompose at only 325 celcius and carbonization can reach up to 50%. Hence, it is proven that PIR foam is protection for combustion and the carbonized layer will cut down the high temperature passing through the panel. This results conclude that it is a proven product that is fire resistance. PIR also has superior thermal resistance and dimensional stability.

## Polyurethane Insulation Foam (PUR)

On the other hand, PUR foam will decompose at lower temperature (around 200 celcius) compared to PIR foam. Therefore the carbonization is also low achieving only 20%. Polyurethane foam insulation can work well as a soundproofing material - particularly for muting midrange noises like music and voices.

## HANDLING & PACKING

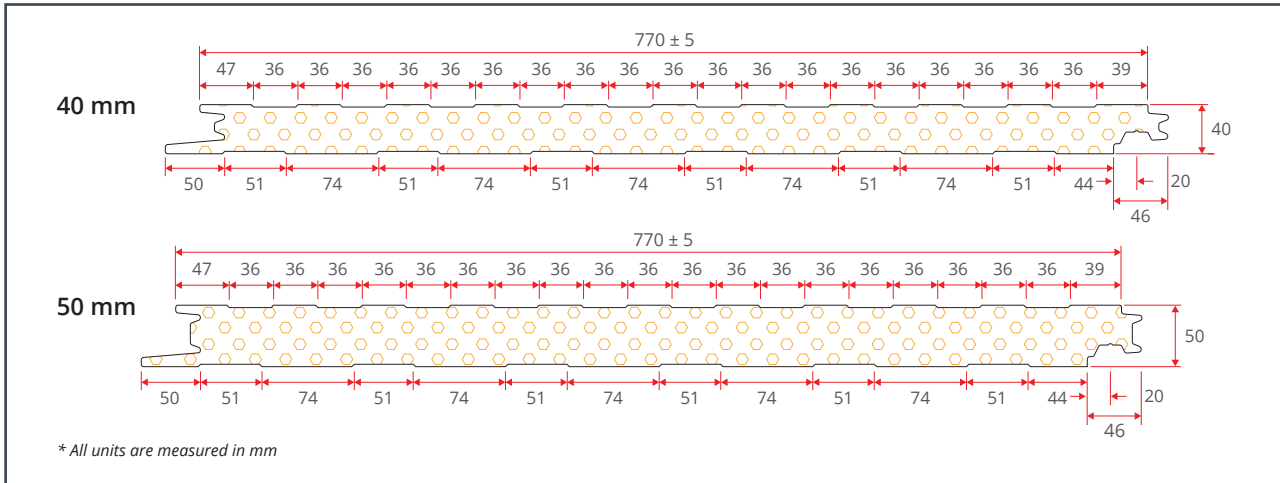
We pay high attention and commitment to how our products are packaged. More manpower is used to put the products on standard crates before filming them. The sides are also protected with plywood. Precaution measurements have been taken to avoid any skidding in the container during transportation. We ensure every delivery that reach our customer is in good condition. Indeed we also provide custom made packaging for customer who requires extra protection for their specific order.



# LEDEX PREMIUM™ PU WALL PANEL



## Specification Drawing



## Product Specification

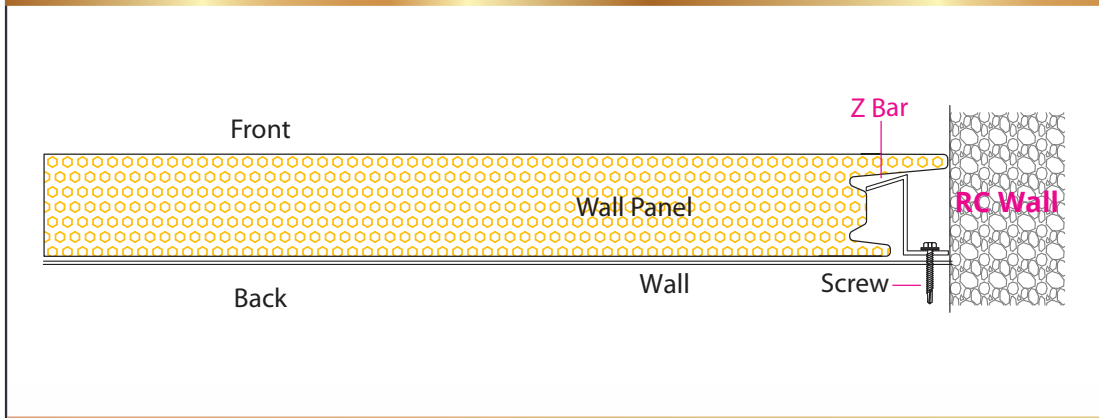
Profile	Ledex Premium™ PU Wall Panel
Effective Width	770 mm
Steel Grade	Zincalume G300 Steel
Outer Layer Finishing	Zacs Natural, Prima Maju, Colorbond
Inner Layer Finishing	Zacs Natural, Prima Maju, Colorbond
Type of PU Foam	Polyurethane (PUR) / Polyisocyanurate (PIR)
PUR Insulation Density	40 - 45 kg/m <sup>3</sup>
PU Foam Thickness	40 mm, 50 mm, 60 mm
Standard Length	Minimum Length 1500 mm, Maximum Length 6000 mm
Surface Available	Liner Surface, Plane Surface & Micro Wave Surface
Tolerance	Length ± 2 mm, Width ± 5 mm, Metal Thickness ± 0.03 mm, PU Thickness ± 2 mm

## Thickness Available

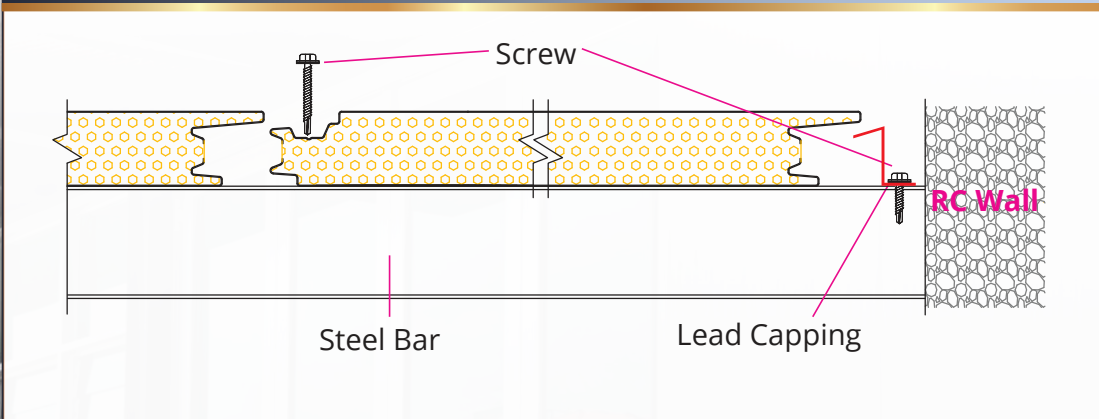
Outer Layer Thickness TCT (mm)	Inner Layer Thickness TCT (mm)	PU Panel 40mm (kg/m)	PU Panel 50mm (kg/m)	PU Panel 60mm (kg/m)
0.36	0.36	6.24	6.40	6.70
0.40	0.40	7.00	7.20	7.50



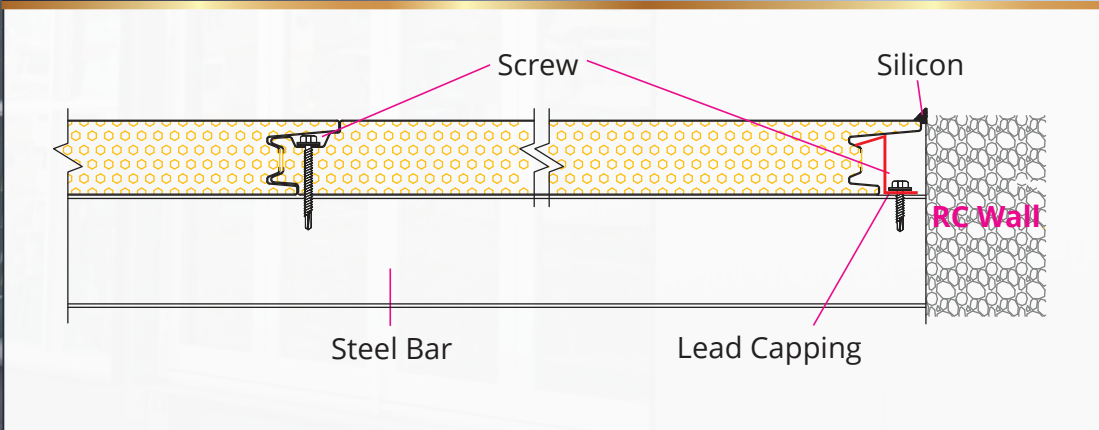
## Step 1



## Step 2



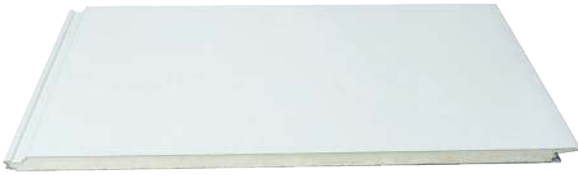
## Step 3



Liner Surface



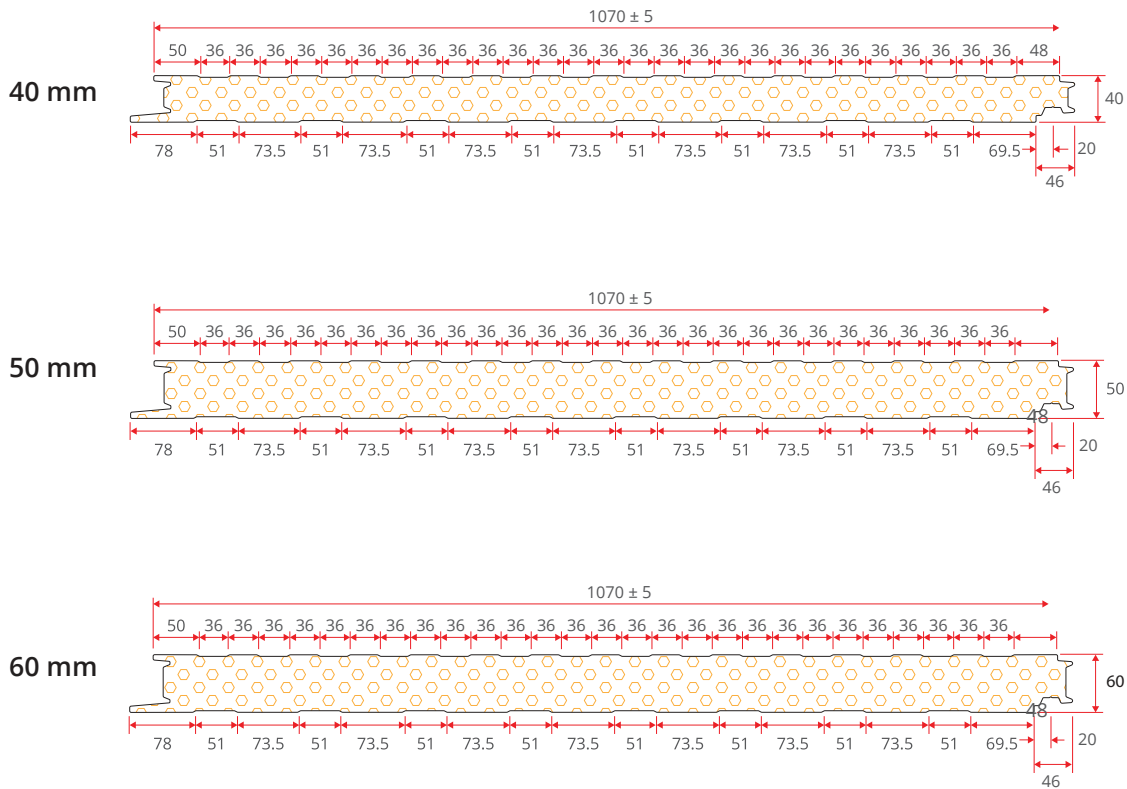
Plane Surface



Micro wave Surface



## Specification Drawing



\* All units are measured in mm



## Product Specification

Profile	Ledex Premium™ PU Wall Panel Plus
Effective Width	1070 mm
Steel Grade	Zincalume G300 Steel
Outer Layer Finishing	Zacs Natural, Prima Maju, Colorbond
Inner Layer Finishing	Zacs Natural, Prima Maju, Colorbond
Type of PU Foam	Polyurethane (PUR) / Polyisocyanurate (PIR)
PUR Insulation Density	40 - 45 kg/m <sup>3</sup>
PIR Insulation Density	50 - 55 kg/m <sup>3</sup>
PU Foam Thickness	40 mm, 50 mm, 60 mm
Standard Length	Minimum Length 1500 mm, Maximum Length 6000 mm
Surface Available	Liner Surface, Plane Surface & Micro Wave Surface
Tolerance	Length ± 2 mm, Width ± 5 mm, Metal Thickness ± 0.03 mm, PU Thickness ± 2 mm

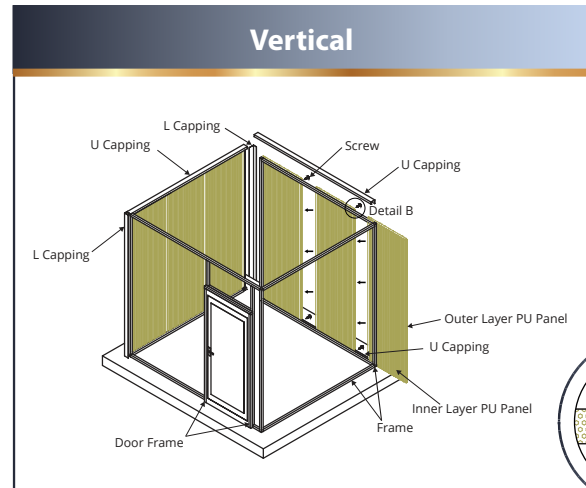
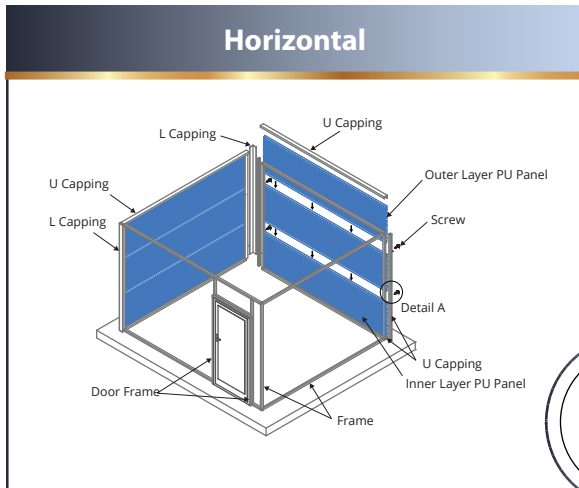
## Thickness Available

Outer Layer Thickness TCT (mm)	Inner Layer Thickness TCT (mm)	PU Panel 40mm (kg/m)	PU Panel 50mm (kg/m)	PU Panel 60mm (kg/m)
0.36	0.36	8.00	8.60	9.10
0.40	0.40	9.00	9.50	10.00
0.47	0.47	10.40	10.90	11.40

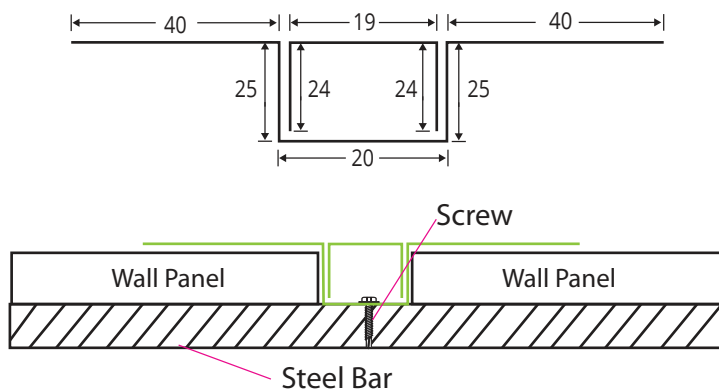
## Insulation Properties

Item	Specifications		
Type of Insulation	Polyurethane(PUR) / Polyisocyanurate(PIR)		
Foam Density	40 - 45 kg/m <sup>3</sup> / 50 - 55 kg/m <sup>3</sup>		
Insulation Grade	Non CFC, Non HCFC		
K Value (Thermal Conductivity)	0.024 w/mk - 0.026 w/mk		
Thickness of Insulation	40 mm	50 mm	60 mm
U Value (Thermal Transmittance)	0.60 w/m <sup>2</sup> k	0.48w/m <sup>2</sup> k	0.40 w/m <sup>2</sup> k
R Value (Thermal Resistance)	1.67 w/mk	2.08 w/mk	2.50 w/mk

# ASSEMBLY CONCEPT



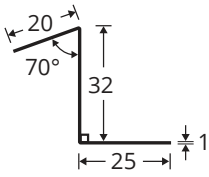
# ALUMINIUM CONCEALED JOINT



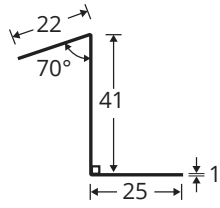


# ACCESSORIES

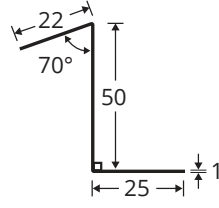
Z Bar - WP 40



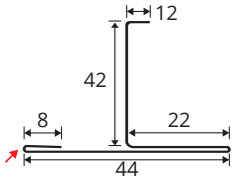
Z Bar - WP 50



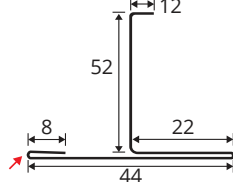
Z Bar - WP 60



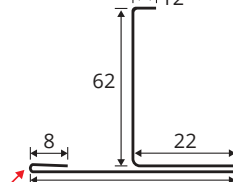
T-Joint Capping - WP 40



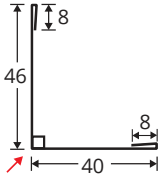
T-Joint Capping - WP 50



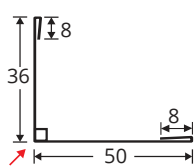
T-Joint Capping - WP 60



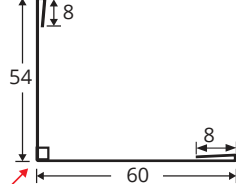
L Capping - WP 40



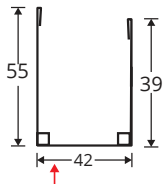
L Capping - WP 50



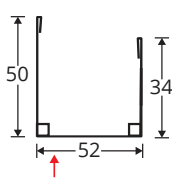
L Capping - WP 60



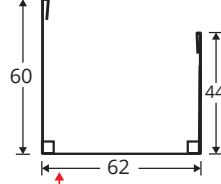
U Capping - WP 40



U Capping - WP 50



U Capping - WP 60



\* All units are measured in mm  
 \* Any special sizes will be customized on request  
 \* Color Pointer →

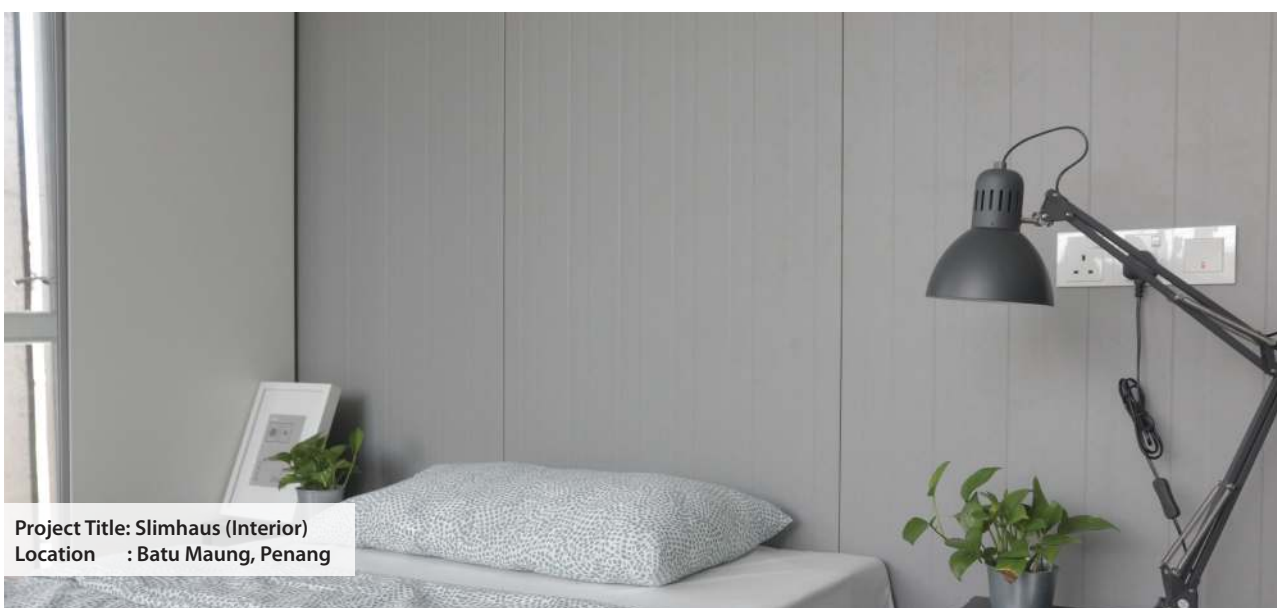




Project Title: Spritzer Factory  
Location : Taiping, Perak



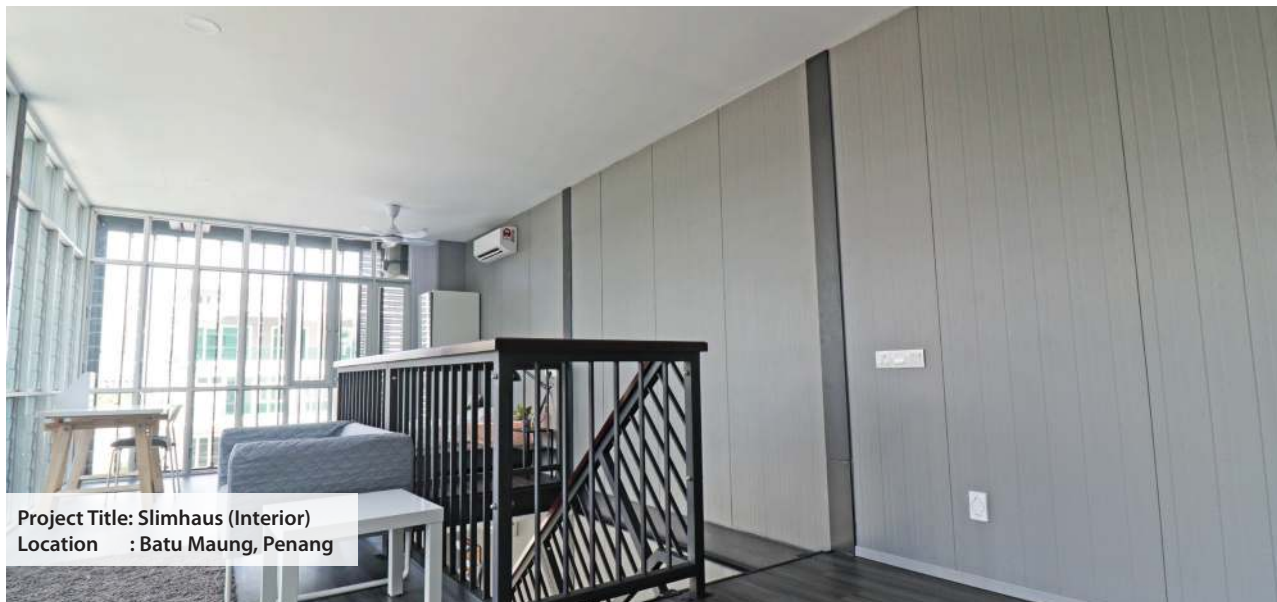
Project Title: Slimhaus (Exterior)  
Location : Batu Maung, Penang



Project Title: Slimhaus (Interior)  
Location : Batu Maung, Penang



# PROJECT REFERENCE



Project Title: Slimhaus (Interior)  
Location : Batu Maung, Penang



Project Title: River Park  
Location : Auto City, Penang



Project Title: River Park  
Location : Auto City, Penang



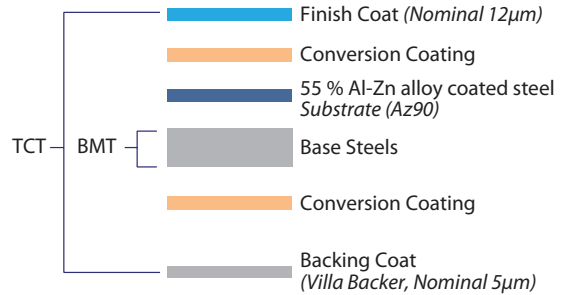
Zacs® AZ 90	
Thickness BMT (mm)	Thickness TCT (mm)
0.20	0.25
0.25	0.30
0.30	0.36
0.35	0.40
0.40	0.45

Warranty against perforation by corrosion for up to 10 years.\*

Warranty against color fading for up to 5 years.\*

\* Warranty terms and conditions apply

### STANDARD MATERIAL SPECIFICATON



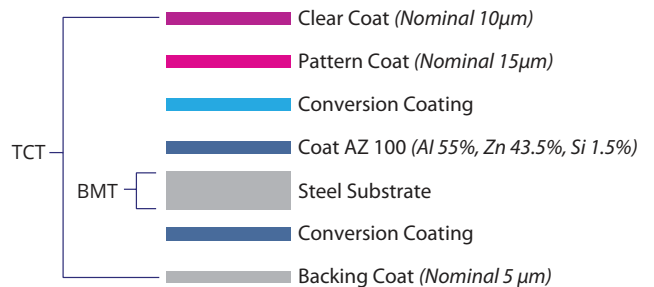
## Elements™

Elements® AZ 100	
Thickness BMT (mm)	Thickness TCT (mm)
0.30	0.36
0.35	0.40

BlueScope Steel offers a long-term warranty against corrosion, color fading, chipping and dirt staining.\*

\* Warranty terms and conditions apply

### STANDARD MATERIAL SPECIFICATON



## PRIMA® M A J U

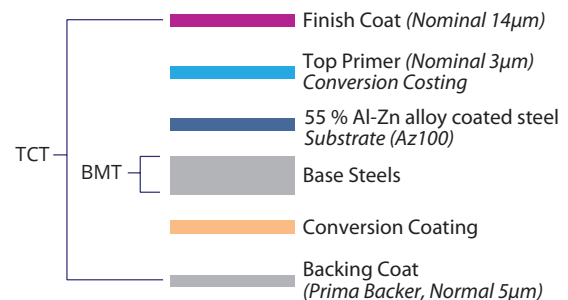
PrimaMaju® AZ 100	
Thickness BMT (mm)	Thickness TCT (mm)
0.35	0.40
0.42	0.47
0.48	0.53

Warranty against perforation by corrosion for up to 15 years.\*

Warranty against color fading for up to 5 years.\*

\* Warranty terms and conditions apply

### STANDARD MATERIAL SPECIFICATON



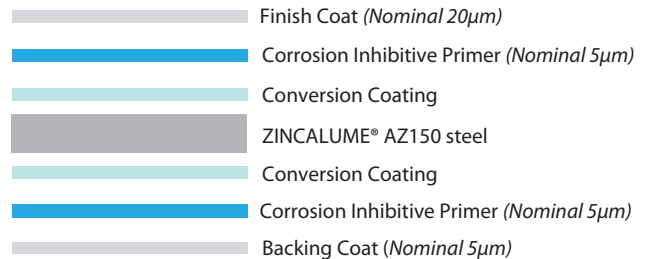


# Colorbond®

Colorbond® AZ 150	
Thickness BMT (mm)	Thickness TCT (mm)
0.35	0.40
0.42	0.47
0.48	0.53

Warranty against perforation by corrosion for up to 25 years.\*  
 Warranty against color fading for up to 10 years.\*  
 Warranty against flake and peel for up to 15 years.\*  
 Warranty against dirt staining for up to 5 years.\*  
 \*Warranty terms and conditions apply

## STANDARD MATERIAL SPECIFICATION

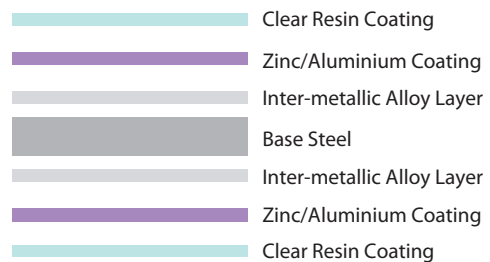


# Zincalume®

Zincalume® AZ 150	
Thickness BMT (mm)	Thickness TCT (mm)
0.35	0.40
0.42	0.47
0.48	0.53

Warranty against perforation by corrosion for up to 25 years.\*  
 \*Warranty terms and conditions apply

## STANDARD MATERIAL SPECIFICATION

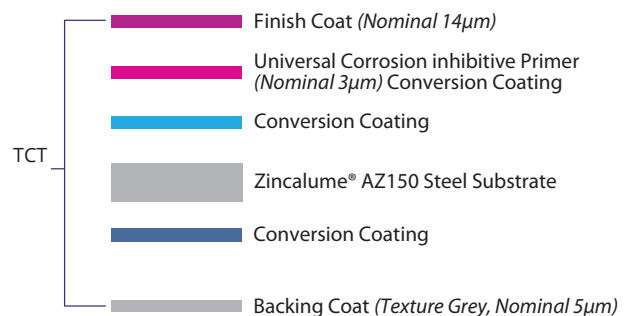


# VERMOE®

Vermoe® AZ 150	
Thickness BMT (mm)	Thickness TCT (mm)
0.35	0.40
0.42	0.47
0.48	0.53

Warranty against perforation by corrosion for up to 25 years.\*  
 Warranty against colour fading for up to 8 years.\*  
 \*Warranty terms and conditions apply

## STANDARD MATERIAL SPECIFICATION



# COLOR CHART

**PRIMA**  
M A J U



PRIMA MERAH	PRIMA MARAKAN	PRIMA BIRU	PRIMA HIJAU	PRIMA SILIKA
PRIMA COKLAT	PRIMA KELULI	PRIMA AWANA	PRIMA LADA	PRIMA MAGNET
PRIMA KASTURI	PRIMA EMBUN	PRIMA KEKABU	PRIMA BACKER	

**VERMOE**



THUNDER GREY	DAZZLING BLACK	ALLURING BROWN

Most Popular

**Colorbond**  
PETAL



Ruby Hibiscus	Sahara Iris	Sky Brunnera	Rose Blush	Sunny Marigold

**BLUESCOPE**  
**Zacs**  
cool



TRG (SEMARAK)	DEEP MAROON (MARAKAN)	MTR (TANAH LIAT)	MEGA BLUE (TELANG)	TORRES BLUE (EMBUN)
PEARL GREY (MENDUNG)	DOVE WHITE (MERGAS)	LIGHT BEIGE (LADA PUTIH)	DARK GREY (KABUS)	CANDLE WHITE (LILIN)
DARK BROWN (SENI BALI)	YODO GREEN (PANDAN)	PLUS GREEN (KASTURI)	BACKER COLOR	

**BLUESCOPE**  
**Zacs**  
Natural



CLOUDY DAY	LAVAROCK	GREEN SUMMER	SMOKYROCK	SANDY SAHARA
HEAVENLY BLUE	COTTON MALLOW	SAPPHIRE	RED GARDEN	Elements CHERRY MABELIA (WOOD GRAIN)



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