

**AM METALS SERVICE CENTRE SDN BHD** (CO No: 551888-W)

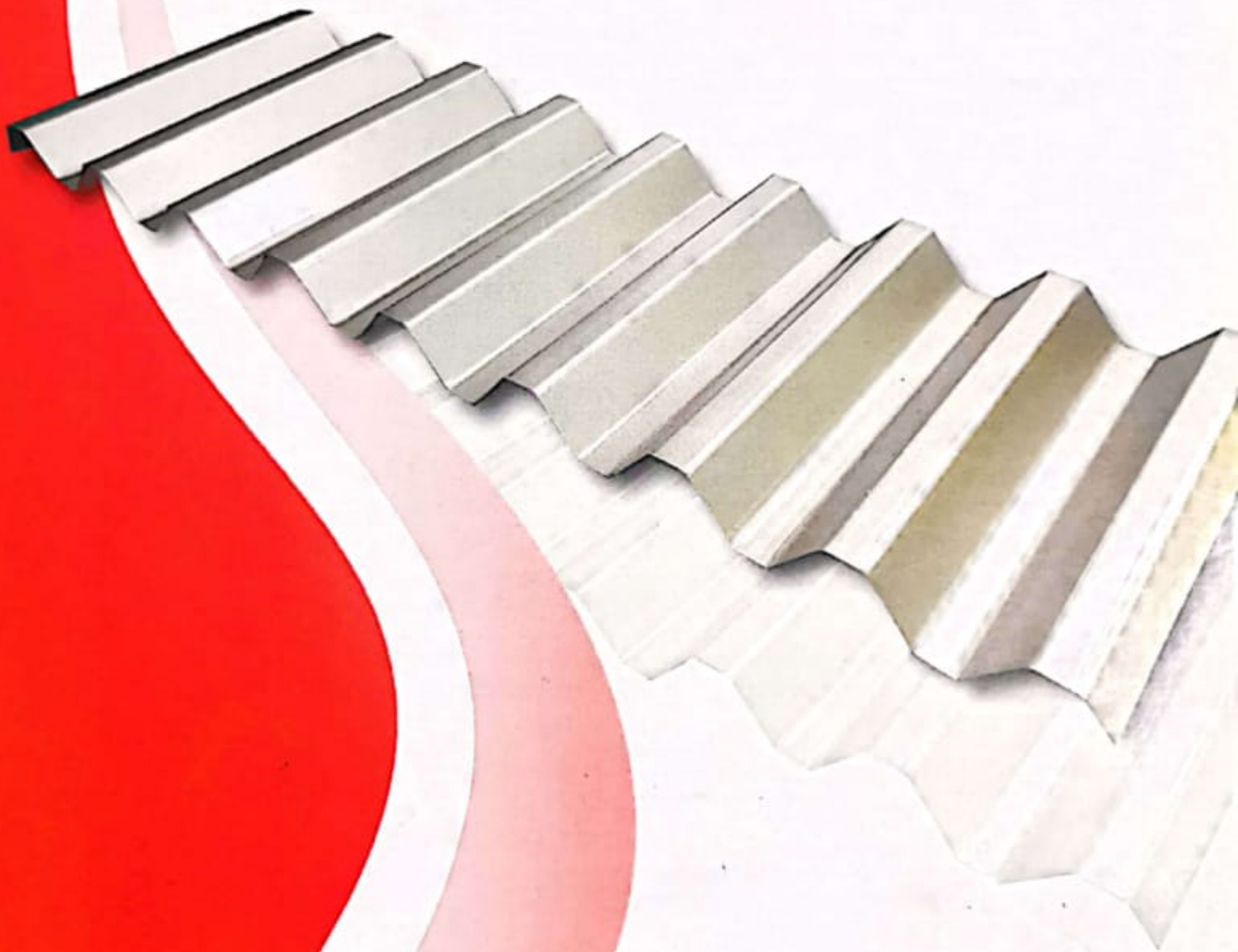


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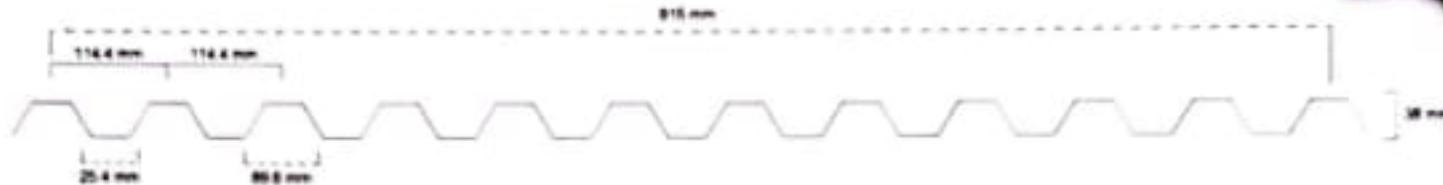
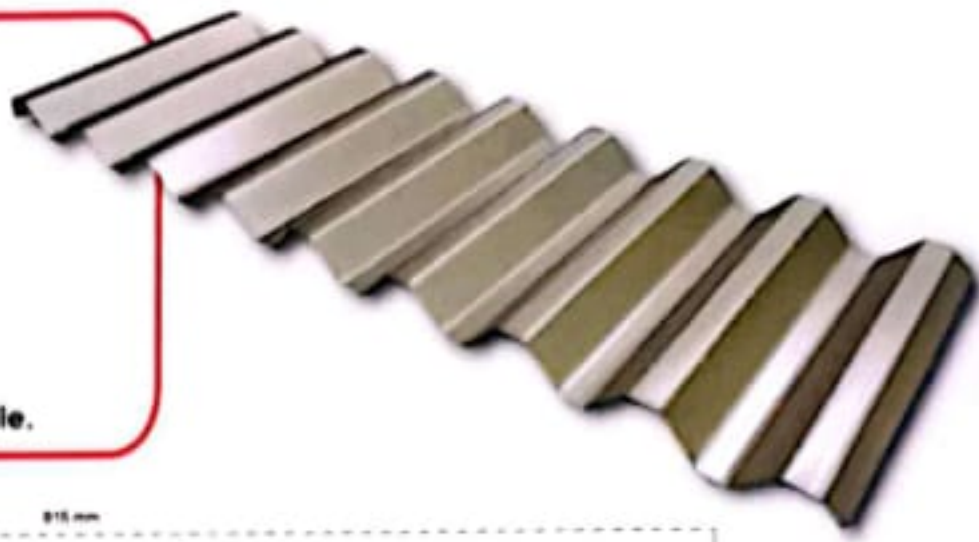


**DURA DECK PROFILE SHEETS**

# DURA DECK ALUMINIUM GROOVED TYPE PROFILE SHEETS

DURA-COAT PPALU / PPGI/ Aluzinc/ Aluminium Stucco Embossed/ Mill Finish/ GI for Metal Roofing, Wall Cladding And Ceiling

- High Tensile Decking Profile Sheets.
- Corrosion Inhibitive substrate.
- Application:
  - Industrial Buildings
  - Commercial Building
  - Residential Buildings
  - Hoarding & Fencing
- Effective cover-915mm - 38mm.
- Min roof pitch 3°
- Economical, durable & futuristic profile.



## INTRODUCTION

Aluminium building sheets are probably the most ideal material available today for tropical climate. Aluminium has certain special qualities that makes it superior in performance, to other building material like asbestos and coated steel sheets.

Aluminium does not crack or break away like asbestos and does not rust and consequently leak like steel sheets. Aluminium sheets are much lighter than asbestos and steel, leading to easy handling and lower transportation costs. It may even mean savings on the structures as the dead weight on the roof structures would be less. Aluminium because of its high thermal reflectivity and low thermal emissivity regulates the temperature inside, keeping it cooler during the daytime as compared to other building materials.

The building sheets are of a high strength aluminium alloy and are manufactured under strict metallurgical and process control to ensure that they perform to the highest expectations of the market.

## INFINITE QUALITIES OF ALUMINIUM

### A) DURABILITY

Aluminium possesses a natural oxide film a continuous, hard and adherent film over the surface. This film protects the metal from further oxidation and deterioration, unlike steel where once the oxide (rust) is formed it penetrates into the metal by a self sustaining process till the entire material is corroded. When aluminium sheets are cut, scratched or abraded the film reforms spontaneously on the exposed surface and protects the metal, whereas in the case of zinc coated steel sheet gets exposed wherever the sheets are cuts, scratched or abraded and consequently the exposed area starts rusting.

### B) GREEN METAL

Aluminium is an infinite metal which can be recycled forever making the world a better place to live in.

### C) CASH SALVAGE VALUE

As mentioned above, it brings one of the highest recycle values in the metal industry. Your roof will forever have a value throughout its performing days until you decide to scrap it or change patterns, colours, designs etc.

### D) NON-TOXIC

Water can be collected from roof coverage area for domestic usage.

### E) WEIGHT

One of aluminium's outstanding characteristics is its low density, which is one-third of steel and one-fifth of asbestos cement. This makes it the lightest metal used in the building and construction industry. The lower weight of the sheets mean lower dead-weight on the structures or in other words savings in structural supports, could be achieved by using aluminium sheets. It also lower transportation costs, and easier handling.

### F) STRENGTH

Aluminium building sheets are produced in alloy 3003/3105 in full hard temper with a minimum tensile strength of 175 Mpa.

### G) THERMAL CHARACTERISTICS

Aluminium has high thermal reflectivity and low thermal emissivity compared to other building materials as indicated in TABLE-1. This means aluminium building sheets form an effective heat barrier and keep the inside cooler in the day time.

Table 1

Material	Heat Reflection Co-efficient Solar radiation	Heat Emmissivity Low temperature Radiation
Aluminium	0.80	0.05
Asbestos	0.04	0.95
Galvanised Steel	0.45	0.25

Table 2

	Average	Peak
Outside temperature in the sun	44°C	50°C
Outside temperature in shade	33°C	50°C
Temperature within aluminium house	31°C	32°C
Temperature within galvanized steel house	34°C	36°C
Temperature with asbestos house	34°C	36°C

Aluminium building sheets reflects most of the solar heat incident on it. Due to its low heat emissivity even a warm aluminium sheet does not radiate heat. Consequently aluminium clad buildings would be cooler. Table-2 indicates the results of an actual test conducted in a tropical climate.

\*The most significant finding of the test was that the temperature under the aluminium building sheets was actually less than the outside temperature while with the other two materials it was higher.

#### H) FIRE RESISTANCE

Aluminium is classified as a non-combustible material and rated class O under U.K. Building Regulations 1976.

#### I) FRIABILITY

Aluminium unlike asbestos does not crack and hence there is no danger of breakages in transit and during erection.

## SPECIFICATIONS

### MATERIAL

AA3003 H18 or AA3105 H18 Solid Aluminium Coil In Full Hard Tensile Strength.

### FINISH

1. Dura Coat Prepainted PVDF
2. Dura Coat Prepainted Polyester
3. Dura Coat Prepainted Antistatic
4. Stucco Embossed Natural Aluminium

### DIMENSIONS

1. 0.5mm (BMT) x 915mm ( Effective Width) x Required Length
2. 0.7mm (BMT) x 915mm ( Effective Width) x Required Length
3. 1.0mm (BMT) x 915mm ( Effective Width) x Required Length
4. 1.2mm (BMT) x 915mm ( Effective Width) x Required Length

### PURLIN AND GIRT SPACING - RECOMMENDED

Thickness (mm) BMT	Purlin Spacing (m)	Wall Girt Spacing (m)
0.5mm	1.2	1.4
0.7mm	1.3	1.6
1.0mm	1.4	1.8
1.2mm	1.5	2.0

### DENSITY : IN KGS

Thickness (mm) BMT	Purlin Spacing (m)	Wall Girt Spacing (m)
0.5mm	1.65	1.75
0.7mm	2.32	2.5
1.0mm	3.31	3.5
1.2mm	3.98	4.2