

Roofing & Pre-engineered Building Solution

### Welcome to our Company

#### Introduction:

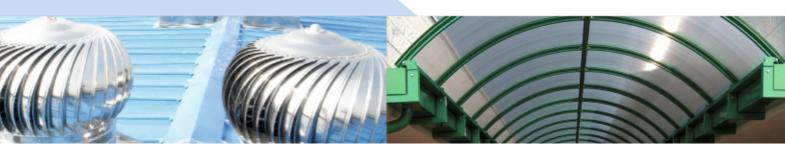
We are a multi dimentional, diversified & multi product company in the Construction Industry. We manufacture and deal with various products line such as "Pre-Engineered Building" as a Turn-Key Project, with all back up support Systems under One Roof. We also sell High Quality products like "Pre Painted Glavalume / Galvanised Roofing & Cladding Sheets & its all Accessories", "Bare Galvalume Sheets & its Accessories", All types of High Quality 'Poly Carbonate / FRP Sheets & Accessories", "High Tensile HR/CR / Galvanised Z&C Purlins", "Hexa Head Self Drilling & Tapping Screws" etc.

#### Vision:

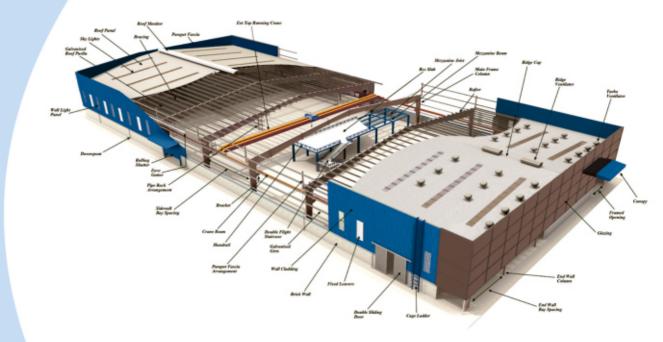
We at Buildstar Infra Pvt Ltd determined to win the confidence of all our Customers by way of the best exemplarily "Before and After Sales Services", positioning ourselves as "Best Quality Supplier". Develop the friendly relations with all our valued customers & Supplier . It is our determination to enrich the knowledge and work culture of the employees & service providers and most importantly, create qualitative value for the Company & Shareholders.

#### Mission:

Work with determination to satisfy all customers. Every dealing with the customer is transparent.



## Pre-engineered Building System



Pre- Engineered steel buildings are designed and fabricated to client's specific requirements in accordance with the relevant standards. A Pre-Engineered steel building consists of four major group of components viz. Primary members, secondary members, metal roofing/wall cladding and connection fasteners. These components to work compatibly together to produce the most optimal and economic design. The fabrication / roll-forming of tease components is carried out in a factory under strict quality control. These are assembled and erected at site to give an aesthetically building.



### PRE-ENGINEERED BUILDING SYSTEM

#### Salient Features:

Uses heigh tensile steel paltes having yield strength of 345 Mpa for fabrication of primary members, thereby structure becomes very light and economical.

Uses cold formed light gauge section for secondary members thus reducing the cost.

The primary structural members are fabrication by automatic continuous submerged are welding in factory ensuring effective quality control.

Usages of metal colour coated material for sheets and cladding, having superior oven backed coating makes it virtually maintenance free and long lasting.

Column free wide clear spans upto 80m feasible.

Flexible designs to meet different functional needs like grater eave heights. EOT cranes on top or multi level structures with mezzanine floors is possible.

Speedy execution drastically cuts down time and cost of projects.

Single source responsibility from inception to completion, covering design, engineering, detailing, fabrication supply and erection is offered by Tiger Steel.

Uses optimal methods of design to provide structurally stable PEB's using MBMA / AISC codes and practices.

#### PEB Advantages:

- 1. Lighter Structure thereby economical
- 2. No welding or fabrication at site
- Long Lasting
- 4. Aesthetically appealing
- Stringent quality control
- Flexibility of planning
- 7. Speedy execution
- 8. Least Maintenance.



# Standard Frame Types

Suggested width range (meters)... For most economical buildings.

FRAME SHAPE	FRAME TYPE	RECOMMENDED SPAN RANGE	REMARKS
	Rigid Frame Clear Span (RFCS)	20 - 40m	Suitable for Ware Houses, Godowns, Workshops, industrial buildings having clear span requitement.
	Rigid Frame Multi Span - 1 (RFMS-1)	30 - 50m	Suitable for large span Building without a valley gutter.
	Rigid Frame Multi Span - 2 (RFMS-2)	40 - 60m	For span greater than 48m it is economical to go for RFMS-2 frame than RMFS - 1
ITTI	Rigid Frame Multi Span - 3 (RFMS-3)	50 - 75m	They are economical than RFMS-2 for spans greater than 72m
	Rigid Frame Lean To	6 - 18m	Suitable for extension of existing buildings.
	Single Sloped building (SS)	15 - 30	Suitable for small spans with drainage facility to single side.
	Rigid Frame Multi Gable - 1 (RFMG - 1)	50 - 100	Economical than RFMS-1 but with valley gutter.
	Rigid Frame Multi Gable - 1 (RFMG - 1)	80 - 120m	Economical than RFMS-1 but with valley gutter.



### Roofing & Cladding Sheet:

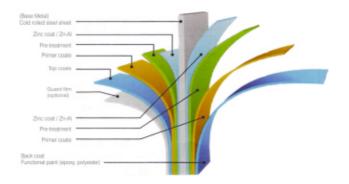
### Benefits & Unique Features:

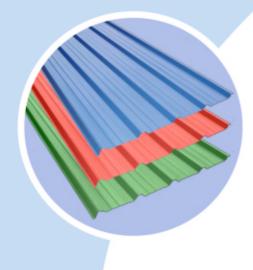
- 1. High tensile roofing & cladding profile sheets now available from 240Mpa to 550Mpa YS (Min).
- Long lasting weatherability due to Alumnum Zinc alloy (Galvalume) coating & special formulations used for chemical pretreatment.
- 3. Better designs with perfect finish, uniform paint thickness, texture, gloss and colours.
- 4. Environment friendly & temperature resistance.
- 5. High corrosion resistance.
- 6. Customized size availibility to reduce lapping wastage.
- 7. Easy to install.
- 8. 3-4 times more life in comparison to conventional GC sheets.
- 9. Spectrum of colour & Aesthetic looks.

#### Utilization:

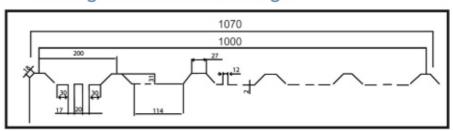
- 1. Industrial shed
- 2. Warehouse shed
- 3. House roof top shed
- 4. Platform shed
- 5. Infrastructure

	Material Standard	PPGL	PPGL	Bare Galvalume
	Australian Standard	AS 1397-1993/2001	AS 1397-1993/2001	AS 1397-1993/2001
Met	Australian Standard	AS 1397-1993/2001	AS/NZS 2728-2007	NA
	American Standard	ASTM A792/A792M-09	ASTM A653/A653M-09	ASTM A792/A792M-09
Standard	Japanese Standard	JIS G 3322	JIS G 3312	JIS G 3321
l ĕ	Indian Standard	IS 513	IS 513	IS 513
Šŧ	Indian Standard	IS 14245	IS 14245	NA
	Indian Standard	NA	IS 277	NA.





### Roofing Sheets Product Range

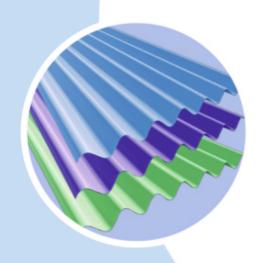


Thickness : 0.35-0.60 mm : AZ-70/AZ150 Aluminium Zinc Coating : RMP/SMP/PDVF Colour Coating Top Coat Thickness : 12-15 micron

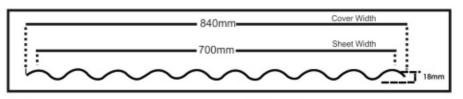
Bottom Coat Thickness : 5-7 micron epoxy primer service coat

Yield Strength : 345-550 Mps Cover width : 1070 mm Effective width : 1000 mm

Guard Flim : 25 micron (Optional)



SI No Material		Yield Strength	Total Costed Thickness TCT	
1	Colour Coated Galvanized(PPGL)	240/340/550/Mpa	0.35-0.60mm	
2	Bare Galvalume(BGL)	550Mpa	0.40-0.60mm	
3	Colour Coated Galvanized(PPGL)	550Mpa	0.40-0.60mm	



Thickness : 0.12-0.63mm

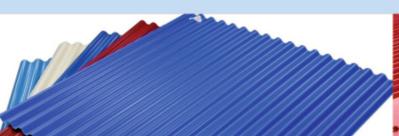
Bottom Coat Thickness : 5-7 micron eoxy primer service coat

Zinc/Aluminium Zinc Coating : Zn-120 GSM/AZ-70 Yield Strength : 240-345 Mpa

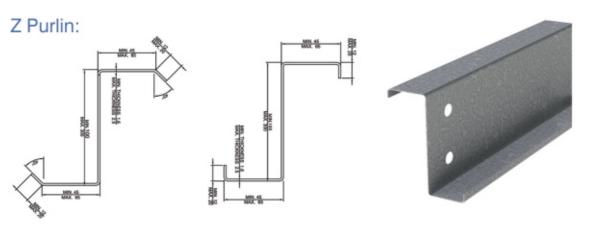
Colour Coating : RMP

Cover width : 780-1110 mm

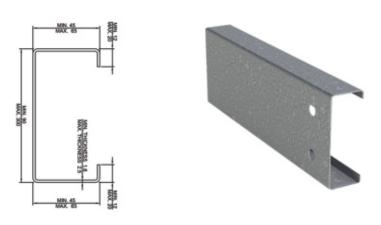
Top Coat Thickness : 18-20 micron







### C Purlin:



Wind load = 150 kg/cm,2 fy=240n/mm2
Yield stress of zincalume sheet = 5500 kg/cm2
Yield stress of a.c sheet & colour coated = 2400 kg/cm2
Slope 10 deg to 14 deg

SPAN	Asbestos Sheet Roofing	Colour Coated Roofings	Galvalume Roofing	Sag Rods
IN MM	(AT 1.4 M)	(AT 1.60 M)	(AT 1.80 M)	(AT 1.4 M)
4.5	Z180 X 2.0	Z180 X 2.0	Z180 X 2.0	NIL
5.0	Z180 X 2.0	Z180 X 2.0	Z180 X 2.0	NIL
5.5	Z200 X 2.0	Z200 X 2.0	Z200 X 2.0	NIL
6.0	Z200 x 2.3	Z200 X 2.3	Z200 X 2.3	1 NO
6.5	Z200 x 2.3	Z230 x 2.0	Z230 x 2.0	1 NO
7.0	Z230 x 2.3	Z230 x 2.5	Z230 x 2.3	1 NO
7.5	Z230 x 2.5	Z230 x 2.5	Z230 x 2.5	1 NO
8.0	Z250 x 2.3	Z250 x 2.3	Z250 x 2.3	2 NO
8.5	Z250 x 2.5	Z250 x 2.5	Z250 x 2.5	2 NO
9.0	Z250 x 2.5	Z250 x 2.5	Z250 x 2.5	2 NO

Thickness	1.5 mm 3.0 mm	Length	upto 12 mtrs. 45 mm - 80 mm				
Web Height	100 mm 300mm	Flange Width					
Material	HR steel/CRsteel/GL steel(120gsm-275gsm)as per Indian and international standers						

	Standard Tollerences on H.R. From Metal section					
Material Accuracy Grade	H.R					
Cross Section Dimension Inside Radius of Bend	+/-2MM					
Angular Dimension	+/-2.5*					
Material Thickness (%of Thick)	-15%					
Bend / Twist Warpose	2mm/mtr.					
End Flair (in 300mm at Ends)	3mm					
Cutting Length	+5mm					
Punching Dimension	+/-0.5mm					
Punching Pitch	+/-1mm					
Ref.to Punching and Cutting	+/-5mm					
Inside Radius in H.R. Profile	2x1 REGULAR 15X1 EXEPTIONAL 1X1SUBJECT TO APPROVAL FROM MANUFACTURES (L=THICKNESS OF MATERIAL					



### Metal Deck Sheet

#### INTRODUCTIONS:

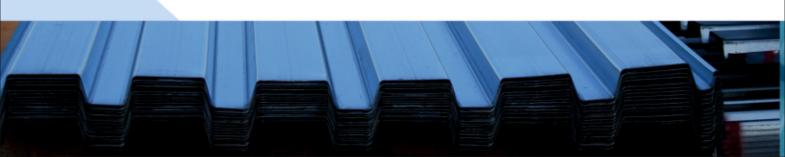
METAL DECKING Composite Floor Deck is a steel deck with a ribbed profile, which binds with concrete slab and together forms a part of the floor structure. This interlocking between the concrete and the floor deck is brought about through a system of embossment and ribs which are built into the deck, creating a reinforced concrete slab that serves the dual purpose of permanent form and positive reinforcement. Composite decking is one of the most effective method of constructing floors in steel building and very useful in high rise RCC / Steel Buildings. BUILDSTARTM has standard profiles which can be supplied within a short time and also develop customized decks suitable for specific requirements. Metal decking can be effectively used in Multi-storey buildings (Industrial / Residential), Shopping malls, Super markets, SEZs, Silos, Storage facilities, mezzanines, bridges, walkways, platforms, etc.

### TECHNICAL SPECIFICATIONS:

BUILDSTARTM METAL DECKING is available in 44mm depth profiles with thickness range of 0.80mm to 2mm. Profiles: 44/130 (44mm depth x 956mm/845mm width) Thickness: 0.80 to 2mm Length: upto 12000mm Material: CR Steel as per IS:513 D-Quality / HR Steel as per IS:1079 / Galvanized Steel (as per IS:277) Type: Bare, Primer coated, Galvanized, Pre-Painted We supply suitable size of decking with optional feature of dimpling, shear connectors and ribs, as per customer's specifications / drawings, for easy erection and also to avoid any wastage / rework at site.

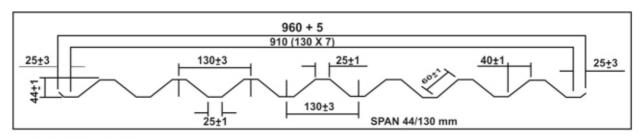
#### BENEFITS OF BUILDSTARTM METAL DECKING:

- Light weight and doesn't require any support, which considerably reduces the use of concrete & slab thickness.
- Acts as composite member and as permanent shuttering.
- No major reinforcement required.
- 4. Deck can be used as working platform during construction.
- Speedy construction enables faster completion of a project.
- Metal deck can also be used as roofing and cladding sheet in cement, power plants and bulk material handling plants.
- Decking reduces the construction time, hence the total cost.

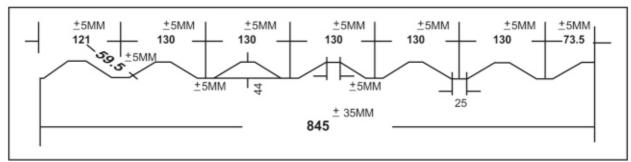


## Trapezoidal Deck Sheet

### Trapezoidal Deck Sheet - 960



### Trapezoidal Deck Sheet - 845



### Geometrical Properties (Yield strength of material – 340 Mpa)

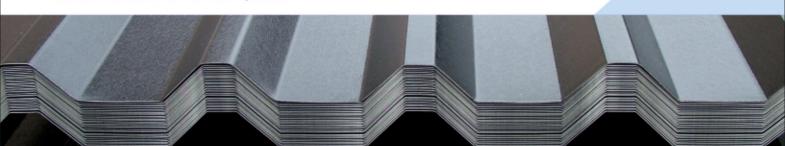
SL. NO.	THICKNESS (mm)	WEIGHT (kg / m <sup>2</sup> )	MOMENT OF INERTIA (cm <sup>4</sup> )	SECTION MODULUS (cm³)
1	0.80	8.16	26.70	12.14
2	1.00	10.20	33.38	15.17
3	1.25	12.75	41.72	18.97
4	1.60	16.32	53.41	24.28
5	2.00	20.40	66.77	30.35

### Allowable Loads (IN kg/m2)

SL. NO.	THICKNESS (mm)	WEIGHT (kg / m <sup>2</sup> )	MOMENT OF INERTIA (cm <sup>4</sup> )	SECTION MODULUS (cm³)
1	0.80	8.16	26.70	12.14
2	1.00	10.20	33.38	15.17
3	1.25	12.75	41.72	18.97
4	1.60	16.32	53.41	24.28
5	2.00	20.40	66.77	30.35

#### Notes (Common to all Deck Profiles):

- 1. The properties given are for one meter width of the Profile.
- 2. Limiting deflection is taken as span / 150.
- 3. Allowable loads may be multiplied by a factor of 0.80 for sheets spanning over 2 or 3 supports.
- 4. Shear Connectors / Rib s are optional.



### **PUF PANEL**

Buildstar offers PUF Panel roofing & wall cladding systems to customer, which has excellent thermal- acoustic resistance and has been designed to cater to all your cooling requirements. The thermal and acoustic insulation can be customised as per the requirement of the client's end use. These solutions are designed to suit all requirements: storing farm produce, freezing, storing cooked and semi-cooked, poultry, seafood, fruits, and vegetables. In short, our cooling extends from the farm to the table. Buildstar PUF panel comes with standard tongue-and-groove joint and optional cam locks and is manufactured in one of Asia most efficient on line, continuous PUF manufacturing machine.

These Pre fabricated PUF panel roofing sheet are made of polyurethane foam (PUF) sandwiched between layers of colour coated steel sheet, which are highly resistant to weather atrocities of the tropical climate and rusting. It reduces heat by approximately 5 to 6 degrees\* and reduces the noise of rain.

### **Applicable Sectors**

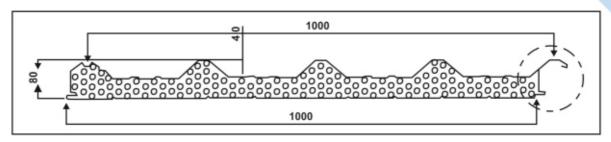
- Power sector \*\*
  - Auditorium \*\*
    - Theatres \*\*
  - Multiplexes \*\*
- Agro industry \*\*
- Food processing industry \*\*
  - Pharmaceutical Industry \*\*
    - Telecom shelters \*\*
    - Defense living shelters \*\*
      - Commercial \*\*
      - Warehouses \*\*
      - Cold storages \*\*
    - Industrial Clean Room \*\*

#### **Benefits**

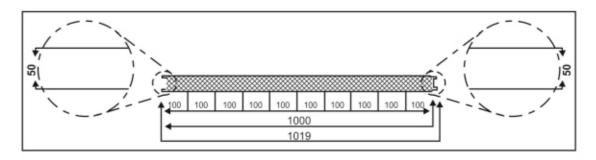
- \*\* High load bearing capacity
- \*\* Excellent thermal insulation
- \*\* Energy savings
- \*\* Resistance to weather and aggressive environments
- \*\* Ease of installation
- \*\* Long life and very low maintenance cost
- \*\* Easy repair and replacement
- \*\* Acoustic sound insulation
- \*\* Reasonable fire reaction and resistance
- \*\* Have Hygienic Surfaces
- \*\* Acceptable for HACCP and FDA Approval
- \*\* Eco Friendly CFC Free insulation material



## **ROOF PANEL**



## **WALL PANEL**



### **Technical Specifications**

<b>Density</b> : 40-45Kg/ m3	Compressive Strength: 1.851 kgf/cm2			PSI/2KGS/cum: 28.5	
Tensile Strength : 3.4 kgf/cm2 Adhesion stre			<b>ngth</b> : 1.81 kg	f/cm2	Water Absorption : 0.2%
Temperature Range: (-) 20 C to (+) 110 C depends			on thickness	Therm	nal Conductivity: 0.0214 W/ m-k
Fire Property : Self Extingui	g fire retardent	Water Vapor	s perm	eability: 0.11 gm/Hr/Sq.m	

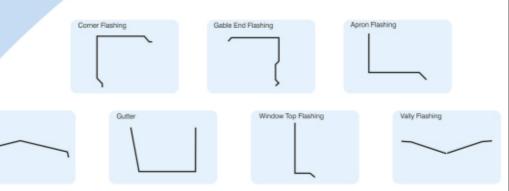
## **Technical Specifications**

Thickness	30mm, 40mm, 50mm, 60mm, 80mm, 100mm, 120mm				
	Overall width 1000mm				
Length			stomize		

<sup>\*</sup> The reduction in temperature may differ due to atmospheric condition prevalent in the region of application



### Verius Profile Sheeting Accessories

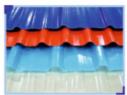


### Other Product

Air Turbo Ventilator



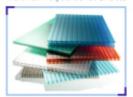
FRP Sheets



Other FRP Product



Multiwall Polycarbonet Sheets



Polycarbonet Sheets



Foam Closer



Self Drilling Screw



Pop Rivet

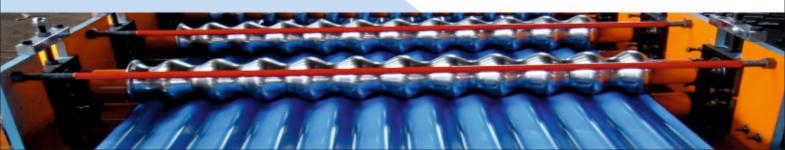


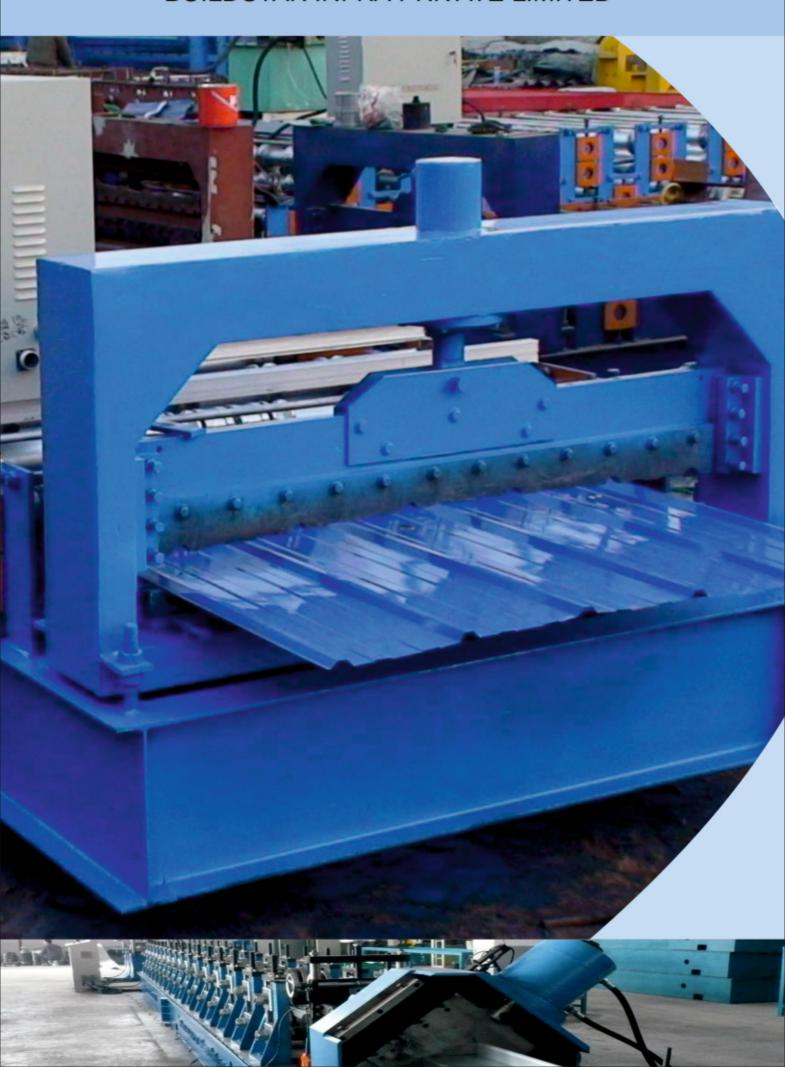
Foundation Bolt



Anchor Fasteners & Nut+Bolt





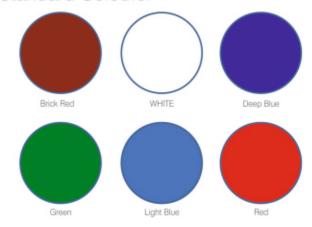








### Standard Colours:



#### Bare Galvalume



#### **BUILDSTAR INFRA PRIVATE LIMITED**