



GROUP OF COMPANIES
THE STEEL BUILDING SPECIALIST

Our Factories

Prime Metal Building System,
Kerala, India.

.....

Kairali Metal Industries Pvt.Ltd.,
Kerala, india.

.....

Topco Curved Structures Pvt.Ltd.,
Kerala, India.

.....

Prime Automated Doors Pvt.Ltd.,
Kerala, India.

.....

Vibgyor Metal LLC,
R.A.K., UAE.

PRODUCT CATALOGUE

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PRIME PRODUCTS

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PEB Building



High Rise Steel Building



PEB Villas



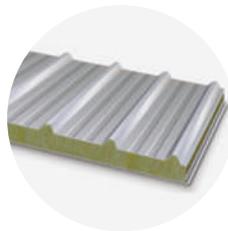
Demountable Office Building



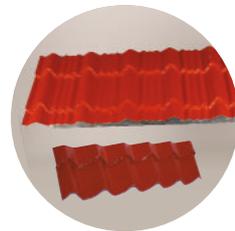
Aquaproof Roofing Sheets with Solar Panel



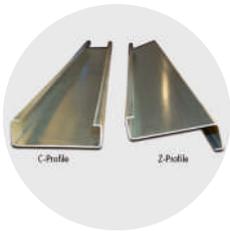
Insulated Puff Panels for Cold Room, Roof and Wall Cladding



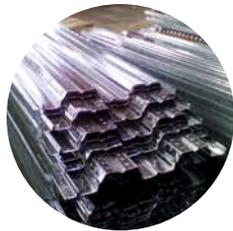
Rock Wool Panel



Mangalore & Bravo Tile



C & Z Purlins



Decking Sheets For Mezzanine



Light Weight Aerated Cellular foam Concrete



Turbo Ventilator



Garage Doors and Industrial Doors



Dock Shelter



Air Craft Hangar Doors



Speed Roller Door

INTRODUCTION

Group has its Origin in 1985 as a Solution provider in Engineering and Construction industry. It has to its credit, being the structural Engineering Solution provider for many Projects such as Industrial Buildings, Hospitals, Theatre complexes, Educational institutions, Hotels and Residential Buildings in India, Middle East, Africa, Sri Lanka and Maldives.

Group of Companies

1. *Prime Roofing Infrastructures & Projects Pvt.Ltd, Thrissur*
2. *Prime Metal Building System (Factory)*
3. *Kairali Metal industries Pvt Ltd. (Factory)*
4. *Topco Curved Structures Pvt.Ltd., Kerala, India (Factory)*
5. *Vibgyor International FZ LLC R.A.K. UAE (Factory)*
6. *Prime Automated Doors Pvt Ltd. (Factory)*
7. *PEB Consultancy services Pvt Ltd.*
8. *Prime Art Gallery, Thrissur*

Group Chairman Er.Joseph Mathew Sankurikal has more than 35 Years of experience in the steel building systems and had been CEO of a leading Pre Engineered manufacturer in the world. He is the recipient of "Emerging Entrepreneur of year 2011 of Kerala "at Dhanam Business Summit, "CEO Excellency award" for the year 2016 by Emerging Kerala CEO, Conclave Kerala Golden leaf award for best Pre Engineered steel manufacturer brand of Kerala at future Kerala brand awards 2017 & 2018.

Since establishing in early eighties, the group has expanded its expertise in the field of manufacturing, construction, project execution in India, middle east and Africa.

Currently the range of activities include, Pre Engineered industrial buildings, high rise steel buildings, Total solution for Engineered high rise building, total solution for logistic hubs, manufacturer of steel structures, all types of roofing sheets including insulated panels, Rock wool panels, cold room panels, deep profile mezzanine decks, curved sheets, all other accessories for steel buildings, Z purlins, C channels, skylights, polycarbonate (Both multiwall and solid) sheets, wind energy turbo ventilators and lightweight foam concrete ideal for office mezzanine decks. Group entered in to engineered door solutions - sectional overhead doors with insulated sandwich panels, insulated rollup shutters, sliding doors, speed doors, dock shelters, dock levelers and hanger doors.

Our Commitment : To provide cost effective solution to our customers, without compromising on the quality, aesthetics and environmental aspects, by maintaining professional and reliable products and services.

Our Vision and Mission: To be the most successful and admired group in the industry with a commitment to improve the living conditions of mankind by providing cost effective solutions.

Our Motto : 100% Customer Satisfaction

We Strive to Achieve : Highest number of Repeat Customers & Lowest attrition rate in the Industry

Er. Joseph Mathew Sankurikal
Chairman, Prime Group of Companies

AWARDS AND RECOGNITIONS



Our Patron Er. S.J. Mathew receiving Life Time Achievement Award for his service to Trichur Diocese in the filed of Engineering.



Er. Joseph Mathew - Chairman of Prime Group of Companies bestowed with Keralas Emerging Entrepreneur of the year 2011 by Dhanam Business Summit. He is receiving the honour from Dr. Abdul Rashid, Chairman and CEO of Hamriya Freezone. Sharjah, UAE



Receiving the Best CEO Award for the year 2015 from Hon.Finance Minister K.M Mani at the Emerging Kerala CEO Conclave & Award Night



Best Pre Engineered Building Manufacturer Brand of Kerala Award for the year 2017 from Mr.Fabian Hamilton Shadow, Minister of UK for Defense and Tourism.



Er. Joseph Mathew Sankurikal, Chairman and Mrs. Bindu Joseph, MD Prime Group receiving Future Kerala Brands Award 2018. The Pre Engineered Steel Manufacturer Brand from Jeremy Pilmore-Bedford, Honorable British Deputy High Commissioner Chennai

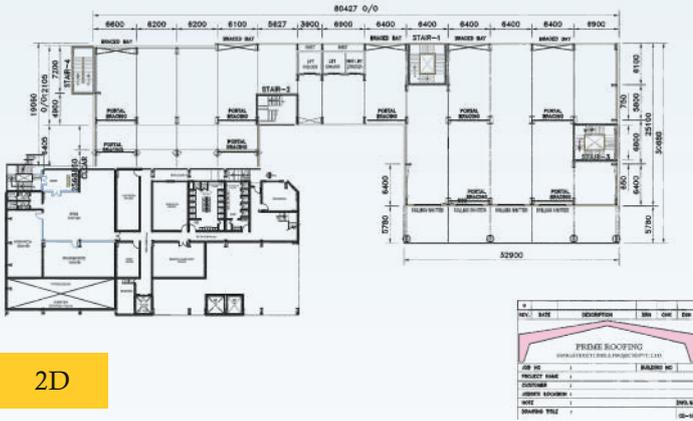


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© U-value	
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PRIME PRE - ENGINEERED STEEL BUILDING

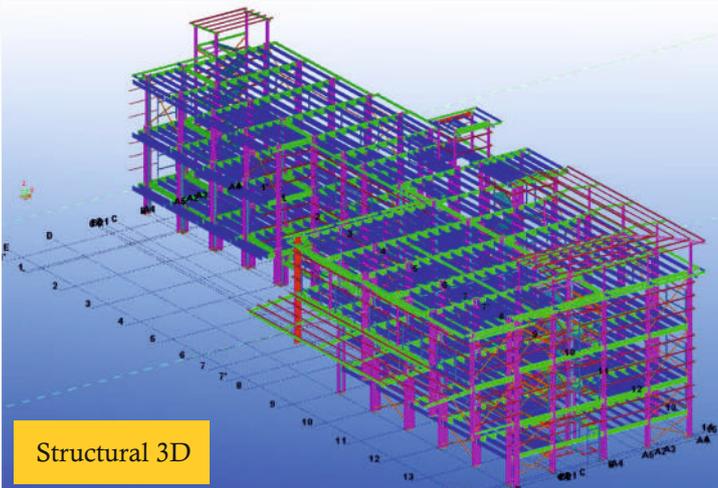
INDIGO PAINTS - KALAMASSERY



2D



Project Perspective





PRIME PRE - ENGINEERED STEEL BUILDING

Snow Park at Athirappilly

Pre-engineered steel building industry is rapidly gaining grounds around the world and it has its imprints in construction projects across various fields in the manufacturing sector, including textile, pharmaceutical and auto motive sectors in India. At present pre-engineered steel building industry is experiencing a rapid growth rate due to macro level projects as well as growth of the market pie itself with more sectors looking at PEB as a viable construction solution.

The most distinctive advantages of utilizing a pre-engineered steel building are the cost effectiveness in material, time-efficiency in

fabrication, erection and aesthetically pleasing in finishing. Thus, having the intention to invest in a pre-engineered building for your business requirements is definitely one of the smartest choices that a company can make. It is important to understand and identify a truly trusted and reliable pre engineered building supplier distinguished itself from the others. Pre engineered building can be adapted to suit a wide variety of structural applications. This guide intends to give you the information necessary to make a smart and informed purchase of a new pre-engineered steel building.



Printing Press, Aluva

THE PEB STEEL STRUCTURES

Basic Building Parameters

The PEB Steel structure of a building comprises of interior rigid frames, endwall bearing or rigid frames, endwall wind columns, secondary structural members (roof purlins & wall girts), wind bracing components and the structural framing of optional subsystems such as roof monitors, mezzanines (inclusive of mezzanine deck and deck fasteners), roof extensions, canopies, fascias, parapets, interior partitions, roof & wall framed openings, anchor bolts, connection bolts and sag rods.



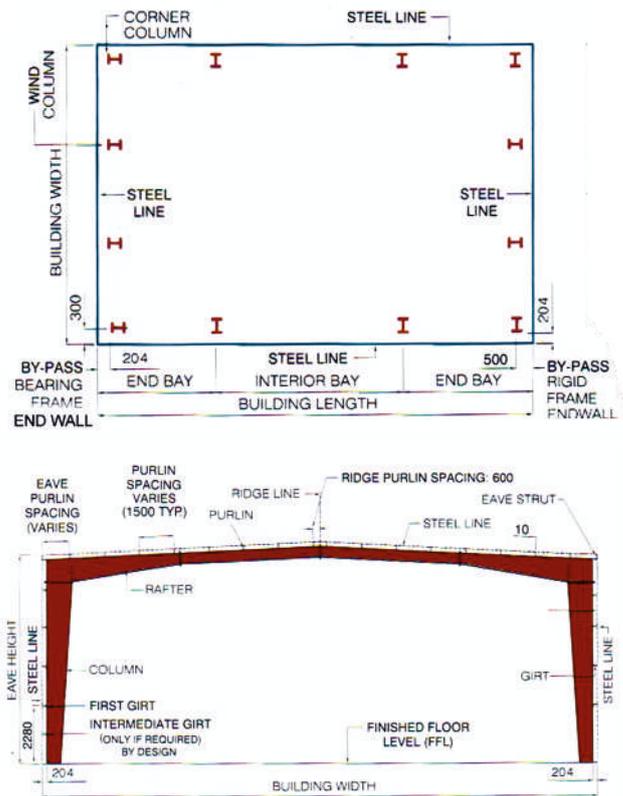
Building width. No matter what primary framing system is used, the building width is defined as the distance from outside of eave strut/purlin of one sidewall to outside of eave strut of the opposite sidewall.

Building length. For flush endwalls, the distance between the outside flanges of endwall columns in opposite endwalls is considered the building length. For by-pass endwalls the distance between the outside of wall girts in opposite endwall is considered the building length. Building length is the sum of all bay lengths. For maximum economy maintain equal interior bay length and make the end bays shorter than the interior bays. An example would be a 100 m long building that has 11 interior bay lengths 8 m and 2 end bay length of 6 m.

Roof Slope (x/10). This is the angle of the roof with respect to the horizontal. The ideal roof slopes is 1/10. Any practical roof slope is possible.

Interior Bay Length. Interior bay length is the distance between the center lines of columns of two adjacent interior rigid frames. The most common interior bay lengths in the PEB industry are 6, 7.5, 8, 9 and 10m. The most economical range of interior bay length is 7.5 - 8.5m.

End Bay Length. For flush endwalls girts the end bay length is the distance from the outside of the outer flange of endwall columns to center line of the columns of the first interior rigid frames. For by-pass endwall girts the end bay length is the distance from the outside of endwall girts to the center line of the columns of the first interior rigid frame. For maximum



economy limit the end bay length to 6m or less and use by pass endwall girts.

Building Height. Building height is defined by the eave height which is the distance from bottom of base plate to the top outer point of the eave strut/purlin. Eave heights upto 30m are possible.

Steel Line is the plane of the out of secondary "Z" & "C" members (or the inside of panels).

Typical Purlin Spacing is 1500 mm but may be higher or lower as required by design. Ridge purlin spacing is 600 mm to accommodate optional 600 mm ridge gravity ventilators. It is higher when a roof monitor is specified.

Eave Purlin Spacing is generally the balance distance of all purlins spacing unless it exceeds 1500mm, in which case it is divided into two spaces.



Why

Prime Pre-Engineered Steel Building

Prime PEB Means
• Strength • Speed • Safety

Single Responsibility - One stop for design, fabrication and supply of your pre-engineered steel buildings.

State of Art Factory that manufactures all pre-engineered building components under one roof.

In house engineering with ability to design building to American, Australian, European and I.S codes standards.

High Quality Raw Materials complete with all Mill Test Certificates

Strong Stock of Raw materials and high production capacity gives faster and better project cycle times.

Engineering expertise for all types of low rise and high rise steel buildings with excellent track records

Best customer Service in the industry with proven track record - sales after service as well as dedicated support team to implement expansions plan

Credibility - Full commitment and dedication to quality product and services. Highest % of repeat customers in the industry.

Inhouse - erection and supervision division to ensure completion of project on time.

Core Strength - continuity of our team with lowest attrition rate in the industry.

Total solution for pre engineering building from projects evaluation, feasibility design and execution of civil as well as steel structure.

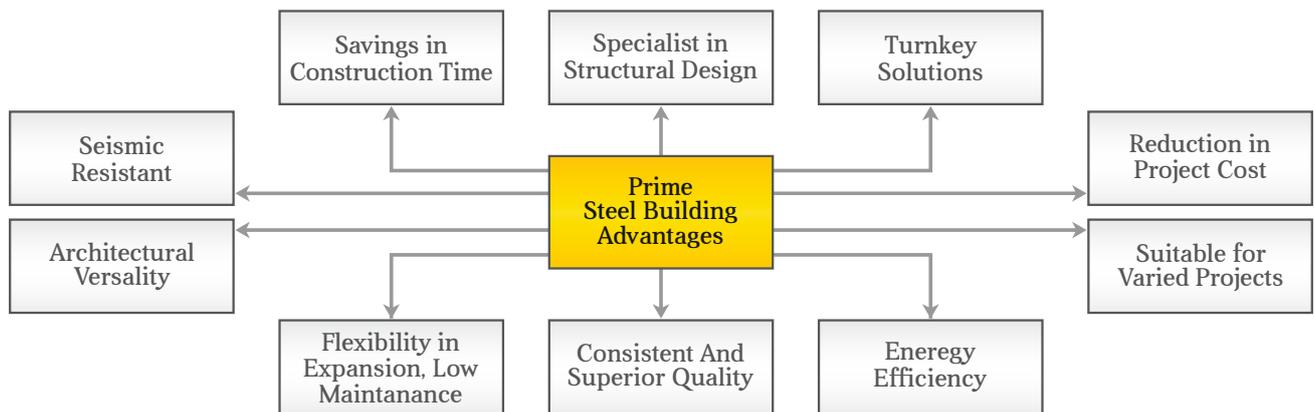


PRIME HIGH RISE STEEL BUILDINGS

G+6 Factory Building- Foundation to Completion in 100 days

Prime offers multistorey steel buildings upto 20 floors. It offers flexibility in design and space utilization to the customrs / Architects. In todays world, where time is money, this solution offers quick turn around, from foundation to completion. A five floor building with a built up area of 20000 sqft can be completed in less than

90 days time. Fast tract construction is possible by replacing conventional blockwall construction with insulated sandwich panels and floors made of deck panels and weight foam concrete/ normal concrete. These building are designed to withstand seismic loads for the respective region.



Home Appliances Show Room



Hospital



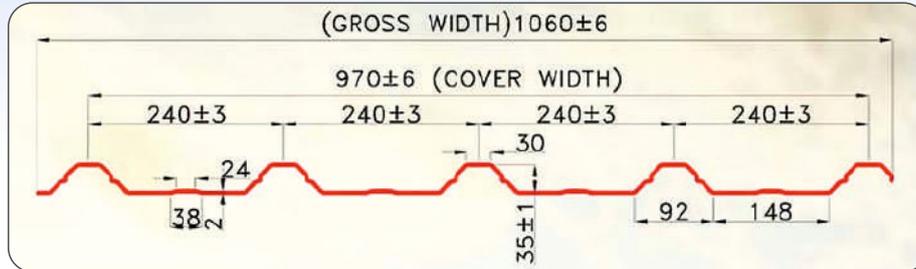
Paint Factory

AQUAPROOF

An Engineered Roofing Product From Prime

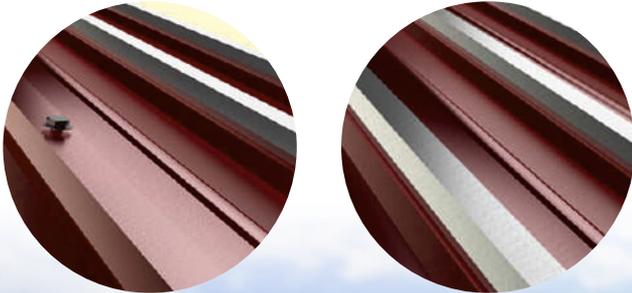
Aquaproof

Aquaproof is 100% leak proof profile sheet equipped for installing solar panel without penetrating the roof sheet. It has self locking caps at alternate ribs (optional at all ribs).



Method of Installation

First tighten the sheet with screws then fix the self locking caps, by pressing on top of the ribs making it 100% water proof. It can be laid with z purlins or box purlins.



Material Specification

Aluzinc

Thickness 0.4mm to 0.9mm. Yield strength 340 MPa and coated with an alloy of aluminium and zinc (Aluzinc) with a minimum alloy coating of 150 grams per sq.m. Top coating is of minimum 20 microns, available in PVDF and RMP, in different colors. Bottom is coated with 8 microns.

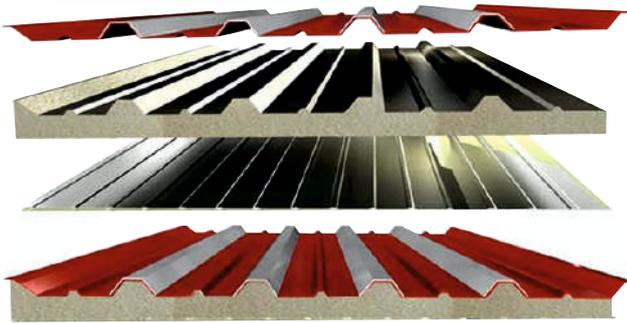
Aluminium

Thickness 0.6mm to 0.9mm. Yield strength min 140 MPa. Top coating minimum 20 microns available in PVDF, HD and RMP in 5 different colours. Bottom coat is minimum 8 microns.



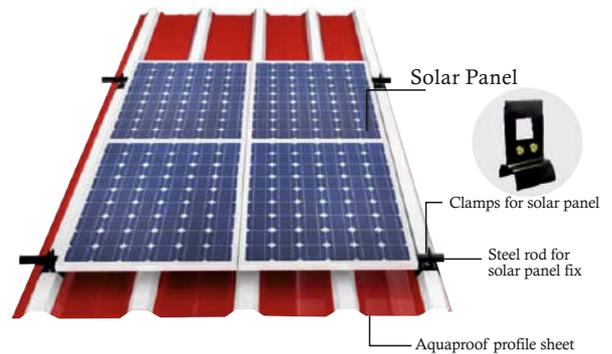
Aquaproof Sandwich Panels

Aquaproof Roofing Sheets are available in Insulated Panels also. Insulation is by rigid polyurethane foam sandwiched between two metal sheets. Panels are available in thickness ranging from 30mm to 75mm. It provides a cost effective solution for excellent Thermal insulation in steel buildings for energy conservation.



Aquaproof For Solar Panels

The other main advantage of this roofing system is its compatibility with solar panels. Solar panels can be installed above aquaproof profile by using special clamps. These clamps can be tightened with out penetrating the roofing sheet. Hence even after fixation of solar panels it remains 100% leakproof.



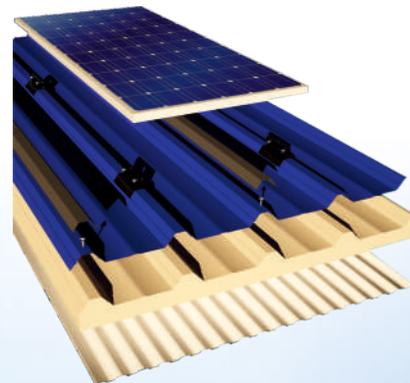
Aquaproof

A complete environment Friendly roofing system

That prevents leak, as no screws are Exposed.

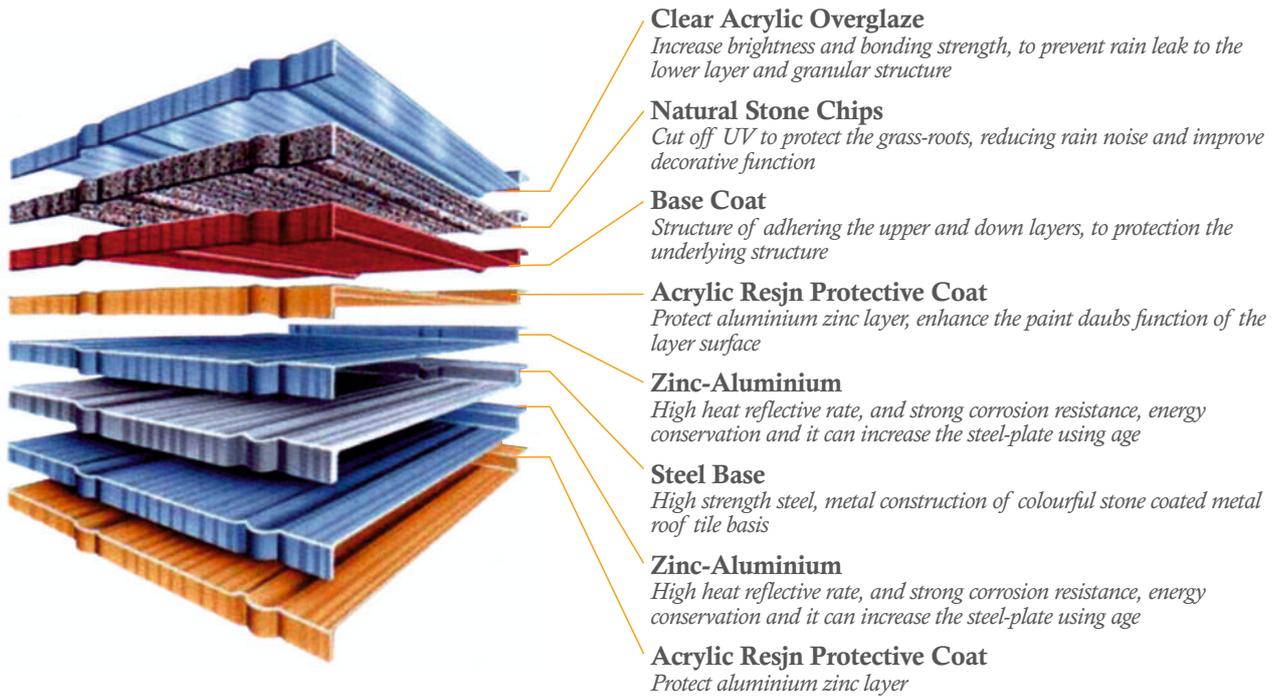
Prevents Heat through insulation

Can fix solar panels with out roof penetration



**Aquaproof -
An Engineered Roofing Product From Prime**

STONE COATED STEEL ROOFING TILE

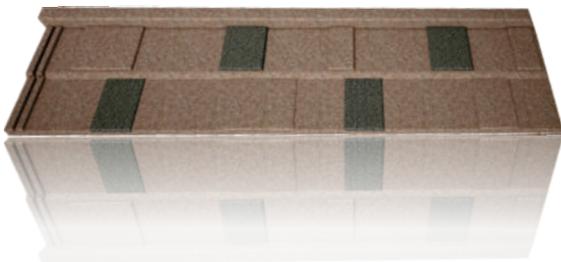


Products Introduction

Colourful stone coated metal roofing tile is a brand new roofing material, which is based on high corrosion Al-Zn plate, high quality watercraft acrylic resin as adhesives weathering of natural stone particles or inorganic colour pigments for the dyeing of natural stone surface, it is creative, complex, environment-friendly high-tech products.

Colourful stone coated roofing tile not only has natural, deep and excellent decorative properties of the traditional clay tile, but has light, strong and durable performance of modern metal tile, it is the main trend of current international advanced roofing material. Colourful stone coated metal roofing tile is suitable for roof slope project with various styles and types of structure (wood, steel, concrete), also applies to the original building's flat to pitched, old roofing and building decorations, and other local projects. It use environmental materials, with no harm to people and environment.

Shingle Tile



Type	Model No.	JH04
Shingle Tile	Tile Size	1340mm x 420mm
	Installed Exposure	1290mm x 370mm
	Tile per Square Meter	2.08 Sheets
	Installed Exposure	2.8kg/Sheet

Roman Tile



Type	Model No.	JH05
Roman Tile	Tile Size	1300mm x 420mm
	Installed Exposure	1250mm x 370mm
	Tile per Square Meter	2.16 Sheets
	Installed Exposure	3.0kg/Sheet

MAIN CHARACTERISTIC

Beautiful Appearance - With the natural stone texture and strong stereoscopic sensation, a variety of types and varied colours, have an excellent decorative landscaping for the building.

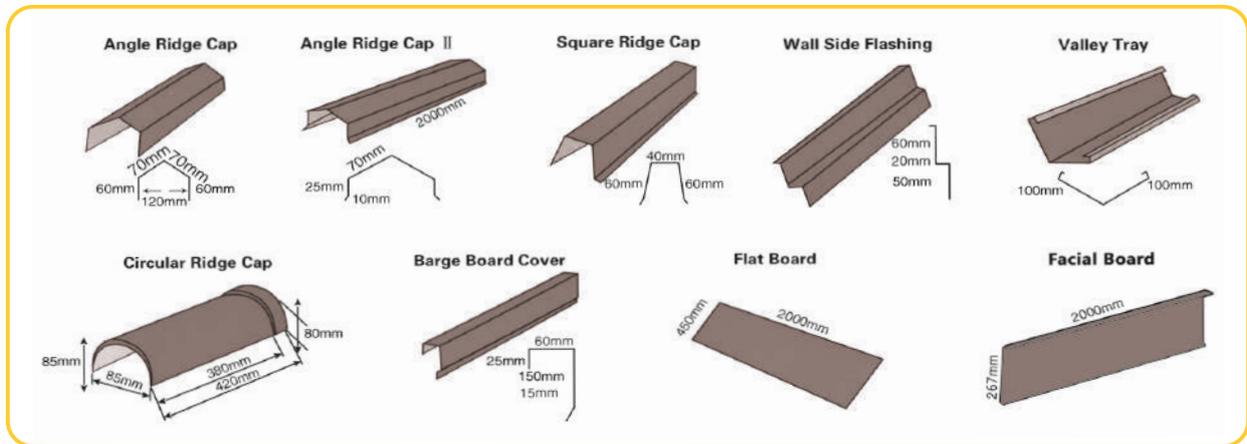
Long lifetime - Adopt high strength, high corrosion-resistant aluminium zinc alloy steel plate, its corrosion resistance is 3-6 times than galvanized steel; the surface material by weathering of natural colour stone particles or inorganic pigments dyeing natural gravel and water-based acrylic resin, product life of up to 30 years.

Lighter weight - Only equivalent to the weight of clay tile, 1/6 of cement tile, it can reduce the load on the building, and reduce the cost of project, you can repeat the construction of the original roof and easy to transport and install.

Construction Simple - Easy to bend, easy to cut, easy installation, low-temperature conditions to the construction.

Energy saving and environmental protection - The heat-reflective rate is 1.4-7 times than the common roof materials, save much energy; it use environmental materials, without harm to people and environment.

Main Accessories



Natural Rock

The use of non-toxic harmless bond, the natural stone and available colours enhances the environmental friendly and stylish advantage.



SPECIFICATION OF STEEL CLADDING

Base Material

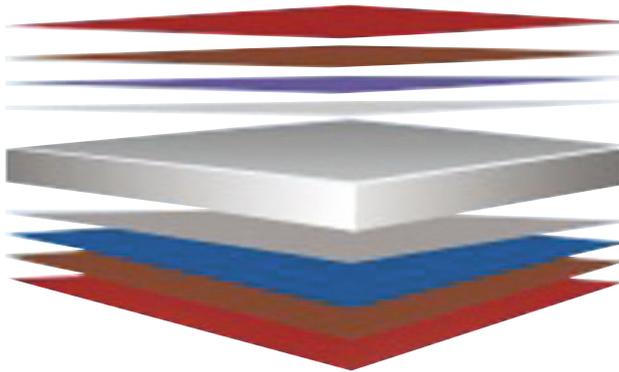
The base material shall conform to ASTM A 653 or other equivalent standards like JIS 3302. EN 10326/10327 and IS 277

PPGI-ZINC Coating (Galvanized)

The base steel material is hot dipped galvanized Zinc coated as per ASTM standard with a coating thickness range 180gm/m² to 270gm subject to confirmation at the time of placing the order.

PPGL-GALVALUM (ALU-ZINC)

Structure Design



The Alu-Zinc coating has unique micro-structure

Alloy layer forms at the interface between the coating and steel substrate

Overlay coating has two main phases-Aluminium rich dendritic phase & Zinc rich interdendritic phase

Corrosion Resistance Mechanism Of ALU-ZINC

When Alu-Zinc sheet is exposed to environmental conditions, the rich interdendritic portion of the coating corrodes preferentially

Coating sacrificial to steel and serves galvanically to protect the steel substrate.

As Zn rich portion of the coating is gradually corroded, the interdendritic interstices are filled with Zn corrosion products.

The coating then transforms into a composite layer of Al rich matrix locking Zn corrosion products to offer physical barrier and act as corrosion inhibitor.

The above mechanism in Alu-Zinc material results in barrier protection & Galvanic corrosion protection.

Superior Corrosion Resistance Of ALU-ZINC

The combined action of Aluminium and Zinc makes Alu-Zinc more effective than steel coated with pure zinc.

Paint Coating (For Aluminium and Steel)

Paint applied on top of galvanized/Alu Zinc/Aluminium material in a continuous (Toli) coating process.

Protective film available on request

Finish Polyester Coating (Nominal 20gm)

Universal Corrosion inhibitive Primer (Nominal 5pm)

Conversion Coating

Alu-Zinc Aluminium Zinc Alloy Coating Az 150

Steel Substrate

Alu-Zinc Aluminium Zinc Alloy Coating Az 150

Conversion Coating

Universal Corrosion Inhibitive Primer (Nominal 5pm)

Backing coat (Matching colour to top coat or grey. Nominal 5pm)

Polyester (RMP)

An economical long life coating, External side coated with 20-25 Microns polyester paint and internal side with 6-10 micron epoxy primer.

PVDF

This coating has high resistance to alkaline atmosphere and excellent UV resistance compared to polyester coating. Coating thickness 20-25 Microns on external side and internal side with 5-7 micron epoxy primer.



COATING SPECIFICATION

Pencil Hardness	H or Harder
Gloss	15-80% at 60 degrees ASTM D 523
Resistance to chalking Quv ASTM D 53	2000 HRS - rating ≤ 4 for PVDF, 1000 HRS - rating ≤ 4 for others
Resistance to Corrosion	1000 HRS - with Blister density ≤ 2 , creepage ≤ 2 mm
Resistance to Humidity	1000 HRS - Blister density ASTM D 2247
Resistance to Colour Change QUV - ASTM G 53	2000 HRS (delta E ≤ 5 unit) for PVDF 1000 HRS (delta E ≤ 5 unit) for others
Flexibility	2T - (ECCA) - no adhesion loss
Resistance to Abrasion	≤ 20 mg as per 100 cycles
Resistance to Acid/Solvents	No discoloration/No Blistering - ASTM D 1308
Product Certification	All product are accompanied with MTC and Packing list
Quality System	ISO 9001 - 2000

Data Sheet Of 0.50mm Aluminium/steel Profile Cladding

Type of Profile		25/252	35/207	38/200	45/250	45/150
Normal	Aluminium	1.56	1.52	1.57	1.58	1.93
weight (Kg/m ²)	Steel	4.44	4.34	4.49	4.49	5.32
ZxTop(mm ³ /M)		1867	4470	5024	4743	7947
ZxBottom (mm ³ /M)		7533	8651	9748	11506	9518
MI (mm ⁴ /M)		37409	103138	125981	151122	197063

Note: Weight and Thickneens is subject to Rolling Tolerance as per ASTM standards



PRIME INSULATED SANDWICH PANEL

We take immense pleasure in introducing insulated sandwich panels manufactured by prime metal building system to the highest international standards. Rigid polyurethane foam is sandwiched by metals or flexible facing and are becoming very popular in meeting the requirements of construction industry by providing a cost - effective system for buildings

and energy conversation. The panels use steel or aluminium sheets for facing and will be manufactured in thickness range of 25mm to 200mm. Their range of application covers the construction of industrial and commercial building, chalets for tourism sector, schools, institutions, specialised applications for the food industry and cold rooms.

Advantages of Sandwich Panels

Excellent thermal insulation which results in better working environment, productivity and cost.

High load bearing capacity at low weight.

Excellent water and vapour barrier.

Capacity for rapid erection without lifting equipments, easier installation.

Easy repair and replacement in case of damage

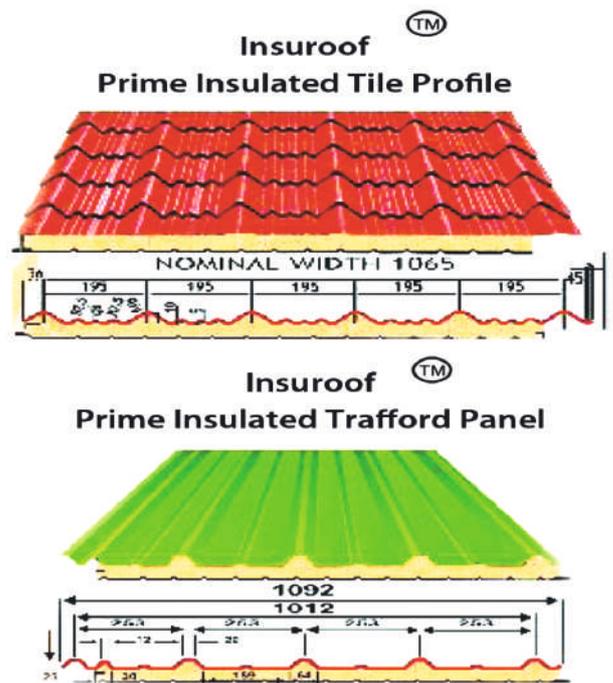
Good sound insulation.

Light weight insuwalls are ideal for making chalets for tourist resorts at difficult terrains

The ideal replacement for Asbestos sheets without modification for the structure

No problems related to condensation

Green product and is reusable



APPLICATIONS



Domestic Roofs



Walls & Cabin Partitions



Cold Rooms & Storage

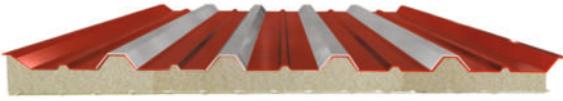
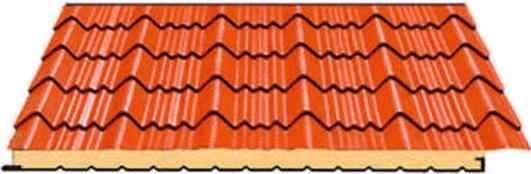
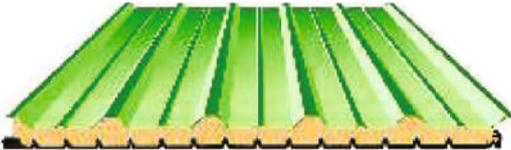
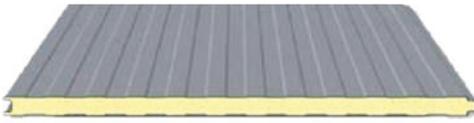


Industrial, Garage Doors



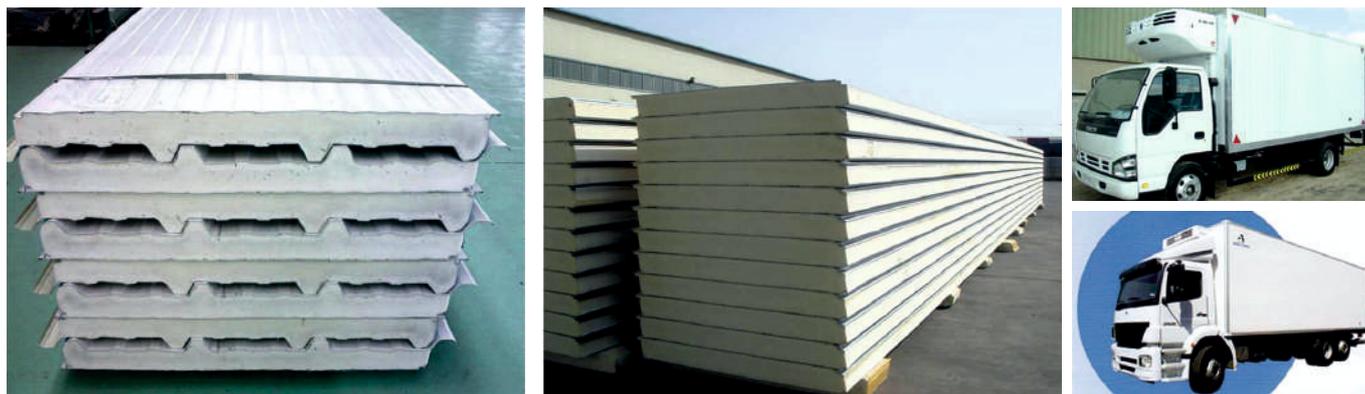
Mezzanine Decks

TYPES OF INSULATED CLADDING MANUFACTURED BY PRIME

Types of profile	Drawing	Application
Aquaproof		Aquaproof Sandwich panel
Tile profile 27/195		Roof Sheets
Bravo Tile profile		Roof Sheets
Six Rib		Roof/wall sheets
Poly Prime Linear Sandwich panel		Roof/wall sheets
Polyprime Liner Sandwich Panel ultimate costeffective solution for Insulated roof and wall. Thickness starting from 30mm. Price 20% cheaper than Metal liner with any colour and same function		
Cold Room Panel		Cold room panel, external & Internal wall protection
Polycarbonate Sandwich Panel		
Poly Carbonate Sandwich panels are produced using polyurethane internal and external sheets of Poly carbonate. Thickness range from 30mm to 200 mm Used for high saline corrosion segments like marine industry cold room		
Bamboo ply wall panel		For partition and external walls

Composite panels are produced using polyurethane with Internal and external sheets of Aluminium/Steel/other suitable texture and architectural materials of different Thickness, coating and colours.

POLYURETHANE PROPERTIES



Polyurethane are macrocellular thermosets as a result of a reaction between POLYOL and ISOCYANATE. Prime uses chemicals manufactured by international brands only.

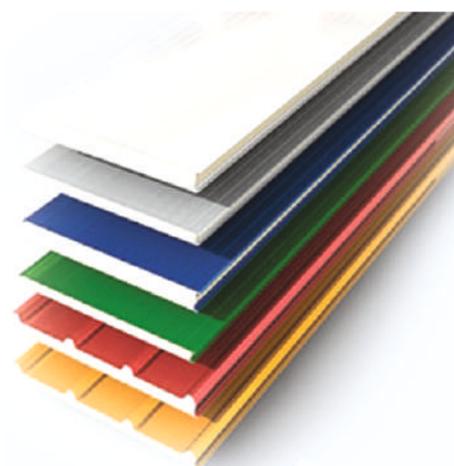
Polyurethane Properties

Low Thermal Conductivity (K & U Value)

Fire Classification

Structural Strength

Auto-adhesion



A Low Thermal Conductivity K or A Values

Each building materials has a different thermal capacity to transmit and radiate heat, known as its conductivity. Conductivity is measured as the watts of energy transmitted by a cubic meter of material per degree centigrade difference in temperature between the two sides.

The conductivity of a material is given as K or A value. The unit is W/m^2k . A companion a K ratings gives a good idea of the relative conductivity of different materials.

The lower the K rating of a material, the less energy it can transmit and therefore the better its insulating quality. Eg. compare concrete and PUR insulation foam.

Concrete has high conductivity with K of around $1W/m^2k$ (one square meter of a block concrete with a thickness of 1m will transmit 1 watt of energy for every degree difference in temperature between its two sides) PUR insulation foams a high performance insulating materials, has a K rating of 0.024. That is to say that a meter thickness of PUR insulation transmits only one fortieth as much as concrete.

R-Value Thermal Resistivity

As explained the K or A rating is based around the standard thickness of one meter which is useful for making comparisons between materials but fails to take account of varying thickness of materials.

Resistance expressed as R value, shows the performance of one square meter of material in thickness actually used. R is calculated as the thickness of the material in meters divide by the K rating $R=d/k$.

The unit is $M^2 k/w$, the area of a given material required for it to transmit one watt of energy for a one degree temperature difference between its two sides. If we apply this to the examples of concrete and PUR foam : standard 75mm thick concrete block with a K rating of 1 will have resistivity of 0.075 meters divided by one which should give R of 0.075. A standard PUR layer of 50mm of PUR foam with a K rating of 0.024 would have a resistivity of 0.050 meters divided by 0.024 giving an R of 2.08.

U-Value-Heat Loss Value

However what we need to calculate heat is the inverse of this-its capacity to transmit heat. This is given by the final and most important term on the architects and engineers lexicon, the U-value. The U-value is easily calculated by dividing one by the R value. The units is W/M²OK and is the watts of energy transmitted by a square meter given per degree difference in temperature between its two sides. If we apply this to the examples above.

This is to say that one square metre of concrete will transmit 13 watts of heat if there is one degree temperature difference between its two sides.

The U-value of the 50mm PUR foam is one divided by 2.08 which a U of 0.48. One square metre of 50mm PUR foam will therefore transmit only 0.48 watts of energy per degree temperature difference.

To work backwards and convert a U value into an R value, you need to divide one by the U-value. Thus if you knew that the U-value of the PUR foam was 0.48, its R value would be 1

divided by 0.48 which would take us back to an R of 2.08

B.Fire Classification

As fire safety in building has become an increasing concern, the reaction to fire behaviour of building products is considered to be a very important factor.

Sandwich panels, of which the polyurethane foam is equipped with reactive and/or non reactive flame retardants to the right amount and ratio with other flame retarding auxiliaries, do meet the fire classification of construction products and building elements in accordance with DIN 4.102. Class B3

C. Structural Strength

Expressed by the compressive strength, considers the resistance against external loads. A measure for the internal structural strength of the foam is the dimensional stability.

Typical Form Properties		
Molded Density	Kg/m ³	35
Closed cells content	%	>90
Initial thermal conductivity (at 23C)	mW/mk	21
Compressive strength (perpendicular to the main plane of the panel)	Kpa	140
Dimensional stability (Linear changes)		
48 hours at -25c	%	1 max
48 hours at 70c	%	1 max

Polyurethane Insulation Property

* Density : 35 kg/m³
* K value : 0.024w/m-k

* Density : 40 kg/m³
* K value : 0.027w/m-k

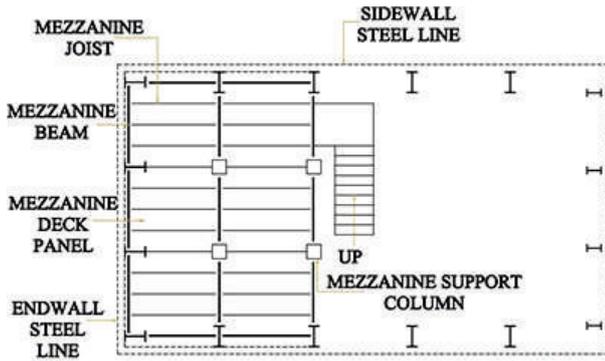
"U" Value (W/m ² -°c)	
PU Thickness	"U" Value
25mm	0.96
35mm	0.68
50mm	0.48

"U" Value (W/m ² -°c)	
PU Thickness	"U" Value
25mm	1.08
35mm	0.77
50mm	0.54

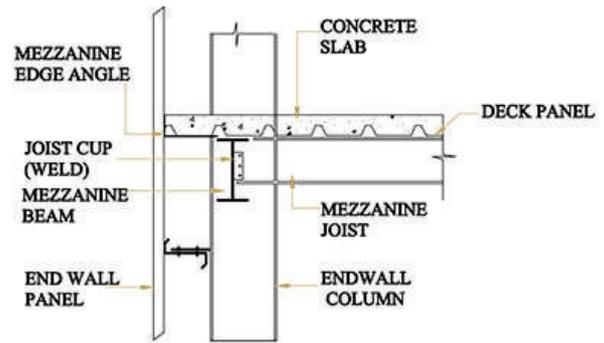
Polyurethane Thickness Range - 15 mm to 200 mm

Note : Higher density is available upon request

PRIME DECKING SHEET AND LIGHT WEIGHT FOAM CONCRETE



Mezzanine Plan



Joist Connection To Mezz. Beam @ Endwall

A mezzanine consist of intermediate support columns, main beams, joists and a deck (that is fastened to the joists with self drilling fasteners). The clear height below the mezzanine beam from 3-4m above FFL.

Mezzanine Support Columns may be square tube sections or built-up I-sections as required by design.

Mezzaninc Beams are built up I-sections normally spanning in the direction of rigid frame rafters.

Mezzanine Joists are built up I-sections that are normally spaced at 1.75m (+/-), for a 100 mm thick concrete slab, joists frame into the mezzaninc beams with a flush type connection.

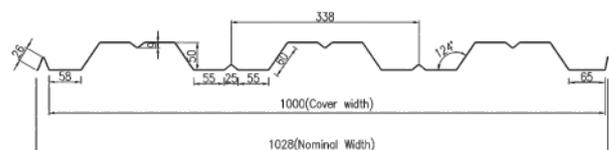
Mezzaninc Deck Panel is intended to carry only the dead load of the wet concrete, acting as a permanent shuttering. Motor decks thickness of ranging from 0.5mm to 0.9mm, used for mezzanine/floor slabs. Thick decking system can take live loads of upto 2000 kg/sq.mt. This system are highly cost effective, time saving and suitable for car showrooms, commercial building and mezzanine offices.

Light weight foam concrete is a macro cellular cementaceous setting of basic ingredients; cement, 10% sand 40%, flash and foam. Depending upon the percentage of flash and sand, density can vary from 500-800kg/m³ strength varies from 8kg/cm² to 20kg/cm². They can be used in combination with decking sheet to cater the live load up to 500kg/m². Ideal for office and showroom mezanines.

Perfect choice for areas that need to avoid dead weight of conventional concrete. It reduces dead weight up 80%



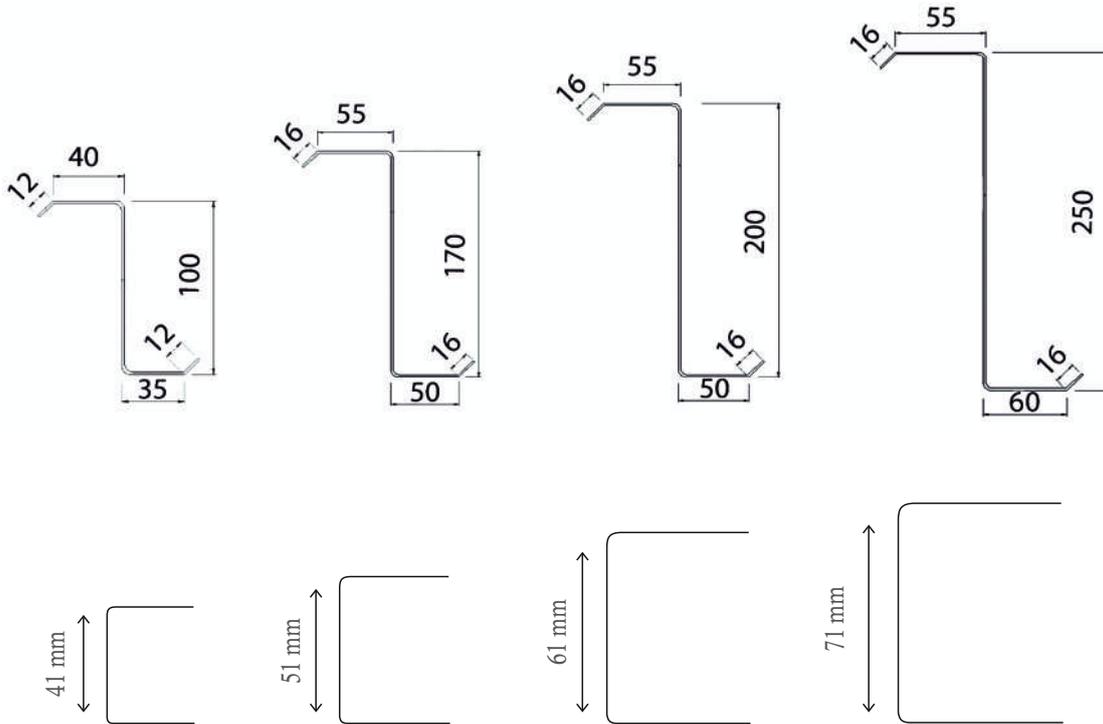
Thickness availabiliy 0.5 mm to 0.9 mm



Prime Decking Sheet Profile

Prime Decking Sheet

PRIME Z & C PURLINS



Channels are available in any length of thickness 0.5mm to 1.5 mm

Material Specification

Z & C section structural members designed for use as secondary supports for roof and wall sheeting.

Z & C sections are manufactured from ASTMA653 structural quality pre hot dipped galvanized sheet to G90 with minimum guaranteed yield strength of 345 N/mm².

Z sections are also available in black steel with yield strength of 345 N/mm² length available upto 12 metre and also available for any cut length.

Z section are available in thickness from 1.5mm to 2.5mm.

Note : Black steel with yield strength 245 N/mm² also available



Size	Z100			Z170			Z200			Z250		
Thickness in mm	1.5	2.0	2.5	1.5	2.0	2.5	1.5	2.0	2.5	1.5	2.0	2.5
Cross section area in cm ²	2.9	3.98	4.97	4.60	6.14	7.67	5.05	6.74	8.42	6.10	8.14	10.20
weight in kg/m	2.34	3.12	3.90	3.61	4.82	6.02	3.96	5.30	6.61	4.79	6.38	7.98
Ixx in cm ⁴	43.5	56.8	69.6	185.9	265.5	331.4	291.9	388.7	485.2	543.6	724.1	904
Iyy in cm ⁴	10.6	13.7	16.6	24.3	40.8	51.0	30.6	40.8	51.0	46.6	62.1	77.6
r _{xx} cm	3.91	3.89	3.87	6.54	6.63	6.64	7.66	7.66	7.66	9.44	9.43	9.41
r _{yy} cm	1.93	1.91	1.89	2.37	2.60	2.60	2.48	2.48	2.48	2.76	2.76	2.76



PRIME COLD ROOM PANEL

Cold Room Panel, is a factory made insulated wall panel, having metal facing combined with polyurethane foam core. The panel has a width has a width of 1170mm with length upto 12.0 meters. The side joint is formed with tongue and groove.



Stacked Cold Room Panels With Tongue and Groove



Cold Room



Food Processing Factory With Puff Panels



Skid Mounted Cold Room Truck

Panel Specification

*width : 1170mm
Maximum length up to : 12 metres
Thickness of panel 30 to 200mm*

Core

Self bonding polyurethane foam

Facings

Polyester coated aluminium, aluzinc, stainless steel or FRP

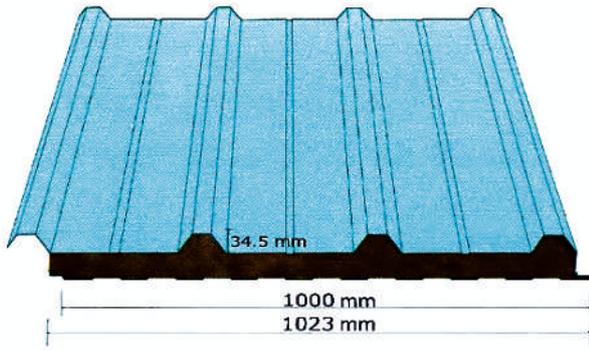
**Density – 40kg/m³
K-value : 0.027w/m-k**

“U” value (W/m²-°C)

Thickness	“U” Value
50mm	0.54
100mm	0.27
150mm	0.20
200mm	0.14

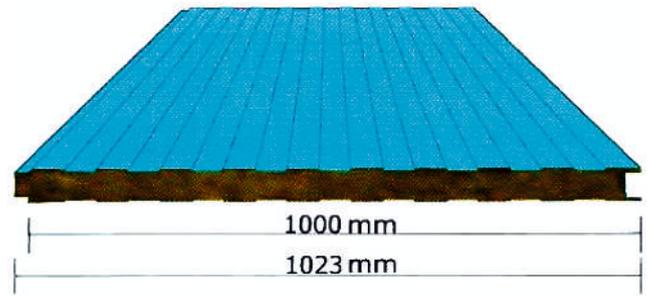
PRIME ROCKWOOL SANDWICH PANEL

Roof Panel



Wall Panel

Lloydroc HR 1



Data	
Top Sheet Profile	Prime profiled sheet
Bottom Sheet Profile	Plain sheet with slight ribs
Panel Thickness	50mm-80mm & 100mm
Facing Material	240MPa GI with 180 GSM Zn Coating/300MPa Galvalume Steel with 150 GSM Alu-Zn Coating
Facing Material Thickness	0.4/0.5/0.6/0.7mm TCT
Facing Material Coating	DFT 20 microns clour coated RMP/SMP/PVDF coating over 5 micron printer

Data	
Top Sheet Profile for	Plain sheet with slight ribbed profile HR 1 and plain sheet for HR profile
Bottom Sheet Profile HR	Profile for HR 1 and plain sheet for profile
Panel Thickness	120mm & 100 mm
Facing Material	240MPa GJ with 180 GSM Zn coating/Stainless Steel / 300 MPa Galvalume Steel with 150 GSM Alu-Zn Coating
Facing Material Thickness	0.4/0.5/0.6/0.7mm TCT
Facing Material Coating	DFT 20 microns colour coated RMP/SMP/PVDF coating over 5 micron printer

Fixing

Prime Rockwool panel shall be fixed on the purlin/ Grit with hot dipped galvanized imported self drilling fasteners with EPDM washers and with necessary overlap as per manufacturer's specification.

Prime Rockwool Panel shall be supplied in upto 1m effective width and in single llength up to 12m without any joints depending on site requirements.

Fixing

Prime Rockwool Panel shall have tongue and groove joint and shall be fixed on the channels on the floor and on to suitable structure with flashings.

Prime Rockwool Panel shall be supplied in upto 1 m effective width and in single length upto 12m without any joints depending on site requirements.

Properties	Rockwool
Insulation	High Density Lamellar Rockwool/mineral Wool.
Overall Density	100 +/-15KG/CU.M
Thermal Conductivity (K.Value) at 10°C mean Temp	0.040 W/tn K-Max
Compressive Strength	50 KPa (Parallel to MVV-Lamellar Dir) Min
Shear Strength	75 KPa (Paarallel to MVV-Lamellar -Dir) Min
Dimensional Stablity at +100 c Hot Temp	+ - 2%
Water absorption	Absosrbs less than 1% as per BS 2972.75
Melting Point of Rockwool	>10000°C
Application Temp Range	-30oC to 250°C
Sound Reduction	Transmission Losses 26 to 30 db
Fire Properties As Per Din 4102	A1/a2
a. Fire Resistance	30 minuties- BS 476 part 8
b. Ignilability	Not easily ignilable-BS 476 part 5
c. Surface spread of flame	Class 1-BS 476 part 7
d. Combustibility	Non combusible- BS 476 part 4



PRIME ARCH PAN

Saves time and cost with no compromise on durability and strength.

No hindrance of columns in between the structure - clear workspace & unobstructed movement.

Zero maintenance, leak proof and longer life.

Interlocking methodology – free from holes, nuts, bolts etc.

The arch space of roofing structure and use of color coated sheets enhance aesthetic appeal.

Incredible installation speed of around 10,000sqft in 12 hrs.

PPGI sheets gives it versatility, ease of use, aesthetics and long-term performance.

Have adequate strength and stability to carry the dead and superimposed live loads.

Effectively protect the habitants and buildings from sun, rain, wind etc and provides durability.

It has waterproof and has efficient drainage arrangement.



*Roofing Steel: Bhushan, Bhushan Brands
(Rainbow Plus)*

Thickness: 0.8 MM TO 1.5 MM

Material: High Grade Pre-Coated Galvalume

Material Coating: RMP Or SMP

Material strength: 300-350 MPA

Coil width: 0.914 MTR

Panel width: 0.610 MTR TO 0.710 MTR

Preferred fasteners: HILTI



ZENITH DOORS
An Opening to Innovations

'PRIME' proudly presents Zenith doors which the modern industry is waiting for...

Innovative door products includes,

American automatic garage door

Sectional overhead industrial doors

Aluminium Perforated window shutters

Insulated Rolling Shutters

Dock leveler, Dock shelter & Dock seal

Fire rated steel doors

Speed Roller door

Hangar doors

The Engineering and Marketing team of our doors division is headed by Executive Director Mr Joseph Jose, who has more than 25 years international experience in automated door industry.

Our Innovative Products



Remote Controlled Garage Door



Industrial Door



Overhead Door with Glass Panel



Hangar Doors



Dock Leveller



Dock Shelter



Speed Roller Door



Fire Rated Steel Door

Note: Refer Door data sheet and contact for more details

www.primepeb.com

sales@primepeb.com

Garage doors with remote control operator



We offer you ZENITH doors as the best & cost effective solution for your residential and industrial requirements.

It is modern, easy to operate, safe and secure, stylish, aesthetic and can be operated with remote control.

Sectional overhead door is fast becoming one of the most popular and practical choice for safe, secure and easy to use garage door systems. These doors are easy to operate manually or with remote control, with excellent spring assisted mechanism for smooth quiet movement. It offers utmost convenience, maximum security and optimum space saving. One can drive into the garage with the help of remote control without stepping out of the car.

Compared to conventional rolling shutters, sectional overhead doors are extremely attractive, stronger in design with complete sealing, robust, well insulated with sandwich panels which provide high heat insulation and sound proofing.

Features and Benefits

Injected polyurethane insulated panels monolithically protected for better strength, durability, sound absorption and temperature stabilization.

Heavy duty anodized steel hardware to suit any site conditions. Meeting International Standards.

Rollers with high quality ball bearing and steel hinges for smooth operation Glazed option (windows) for better interior lighting and improved aesthetics.

Handle and chain hoist for easy manual operations

40 mm polyurethane insulated panel

Complete sealing around the door

Technologically advanced hardware meeting all international standards

Hi tech operators with all safety features

Industrial doors Manual or Electrical



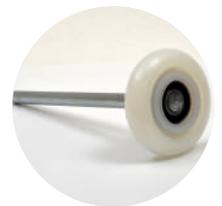
Accessories



Torson Spring



Hinges



Nylon Roller

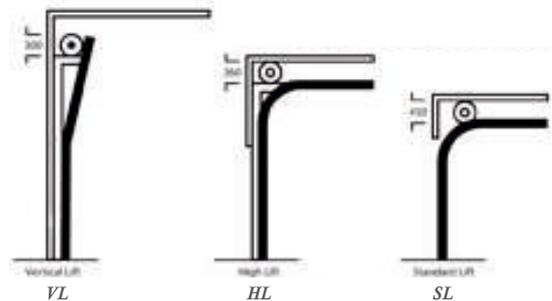


Industrial Operator



Garage Operator

Industrial doors hardware designed to suits any site condition



Dimensional Data of Garage Door

Max Width(m)
5.8

Height (m)
2.75

*can offer other sizes as per requirement

*note- othersizes are possible upon request

Dimensional Data for Industrial Sectional Door

Max Width(m)
6

Height (m)
6



Here heat loss is a primary concern, an insulated rolling shutter is the obvious choice. It is aesthetically pleasing with added security and sealing. Besides providing insulation and values, ZENITH insulated rolling shutter combines strength with elegance and durability with cost effectiveness. The attractive shutter design makes ZENITH the ideal solution for any

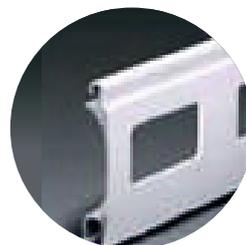
Aluminium Perforated Rolling Shutter



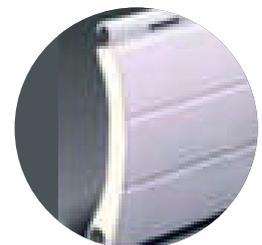
modern architecture whether industrial, commercial, retail or domestic environment. Polyurethane foam infill ensures that ZENITH doors minimize energy waste. Rolling shutters can be electrically operated with tubular motor or side motor with push button or remote option.

Aluminium Insulated Rolling Shutter

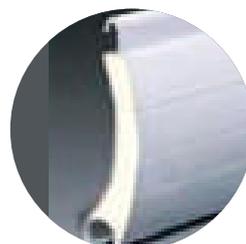
Different types of Slats



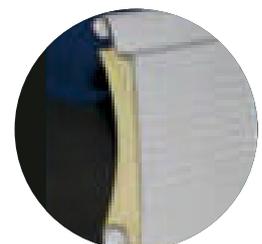
Slotted



42mm and 55mm



77mm



98mm



DOCK LEVELLER - DOCK SHELTER - DOCK SEAL



**Dock Leveller
Hydraulic Operation**



Dock Seal



Dock Shelter

Loading and Unloading solutions designed to create a movable bridge between the loading/unloading area and the surface of the vehicle.

Leveling out difference of heights

Dock shelter cover the vehicle when loading from the platform

Consist of strong carrying frames designed to absorb crashes due to carry manoeuvres and are covered with sheets in robust fire retardant polyester/PVC

FOOD & MARINE INDUSTRIES

- Sectional Over head doors with 40 or 50 mm polyurethane insulated panels
- Dock leveler, Dock Shelter and Dock Seals for loading unloading solutions.
- Insulated Rolling Shutters and window shutters
- Steel Doors etc.

OUR PROJECTS INCLUDES

M/s Parayil Foods & Products Pvt Ltd	M/s Frontline Exports Pvt Ltd
M/s Abad Group in 6 Units	M/s Eminent Seafoods Pvt Ltd
M/s Baby Marine	M/s Sea Boy Fisheries Pvt Ltd
M/s Emmay logistics	M/s Global Star Specialty Foods Pvt Ltd
M/s Torry Harris Seafoods Pvt Ltd	M/s Crystal Sea Foods Pvt Ltd
M/s Arbee Aquatic Proteins Pvt Ltd	M/s Falcon Marine Exports, Orissa
M/s Profand Vayalat	M/s Penver Products Pvt Ltd
M/s Al Bader Sea foods Pvt Ltd	M/s Viceroy Exports india Pvt Ltd
M/s Mangala Sea Foods Pvt Ltd	M/s Manjilas Food Tech Pvt Ltd, Pollachi
M/s Synthite Industries Ltd	M/s H T Foods CSEZ
M/s Plant Lipids Pvt Ltd	M/s AVT Mc Cormick Ingredients Pvt Ltd
M/s Hemanad Spices	

SERVICE DEPARTMENT

We have a service team to

- 1) Attend service calls immediately
- 2) To make AMC
- 3) We can service/repair any make sectional doors



OUR SATISFIED CUSTOMERS



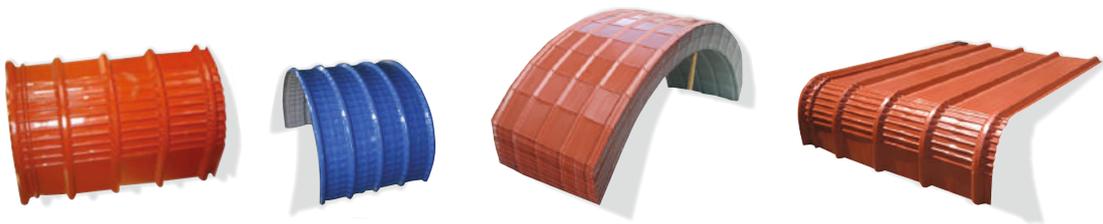
Prime Automated Doors Pvt. Ltd., Airport Sea Port Road, Kakkanad,
CSEZ P. O., Cochin - 682 037

www.zenithdoors.co.in | +91 940075 4444 / 0484 4878262



PRIME CURVED ROOF CLADDING

Prime metal building system can supply curved roof sheets of various curvature upto a length of 12m in steel aluminium profile



Prime Skylights

Polycarbonate Sheets

FRP Translucent sheets are contact Moulded to any profile using clear UV stabilized polyester Resins reinforced with powder Bonded "E" Grade fibre glass Mats. The raw materials used are from reputed manufactures.

Louver



Water proof air inlet system can be provided with fly mesh. It is produced out of galvalum or aluminium polyester coated material. Ideal for ventilating storage areas.

Aluminium Door & Windows



Aluminium doors & windows of required sizes and colour with/without flymesh

Nuts & Bolts

G.8.8.0
Nuts & Bolts

Grand 8.8
Nuts & Bolts





ALUMINIUM WINDOWS & DOORS

Made from high quality aluminium extrusions to ensure higher strength and durability.

Superior Italian design.

Quality hardware and accessories for long lasting trouble free performance.

Limitless colours and textures: Anodized, PVDF, Powder Coated & Wood finish.

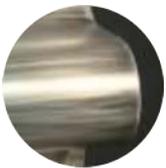
Lasts and retains colours against sunlight, longest in the category.

Smooth, noiseless and hassle-free operation.

Durable during any weather conditions.

Customized solutions, fabrication and installation by experienced fabricators.

Specialized Italian punching machine & tools for precision, consistency and superior finish.



Crafted From Virgin Aluminium For Durability And Strength



European Rollers For Smooth Sliding



Superior Quality European Locks



Noise And Heat Insulation With Double Glazed Or Laminated Glass



Customised Products Suiting Customer Requirements



Limitless Colours And Textures



Endlessly Recyclable Green Metal



Rust-free Therefore Requires No Maintenance.



UPVC WINDOWS & DOORS

Highly sophisticated international fabrication systems.

Efficient technical team with over 15 years of experience.

Manufactured using German Technology.

Immediate customer service.

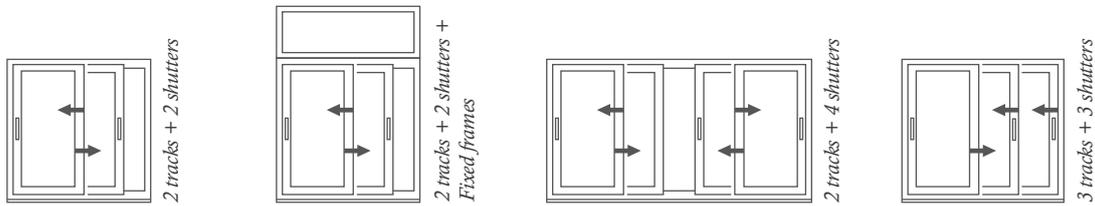
State-of-the-art machinery imported from UK.

Customized products to suit customer needs.

Great value for money.

Sliding Systems

Sliding and Casement options available for both UPVC & Aluminium windows and doors.



Impact resistant

Heat reversion

Heat ageing at 150c

Charpy impact tested

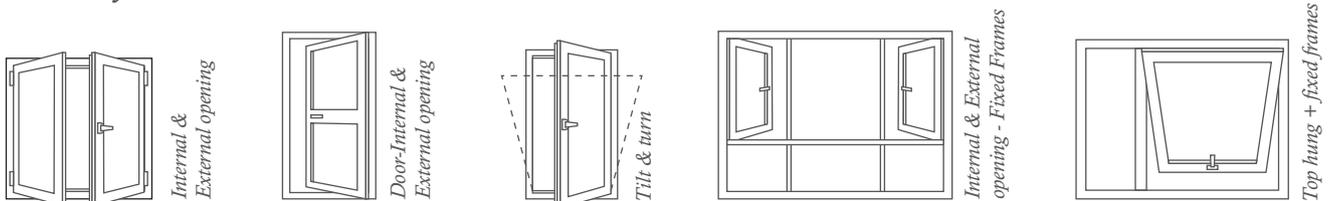
Weathering tested

Weld ability tested

Flexural modulus of elasticity

Vicat softening tested

Casement Systems





THE PERK OF ACHIEVEMENT

Every dream made true is an achievement. Crown them with pride.

That's what we do. Crown your dream space with our exclusive series of handrails, a perfect blend of beauty and strength.

Adorning your stairs, balcony or patios with Hekur handrails is a visible expression of your taste in fine craft and respect for creation.

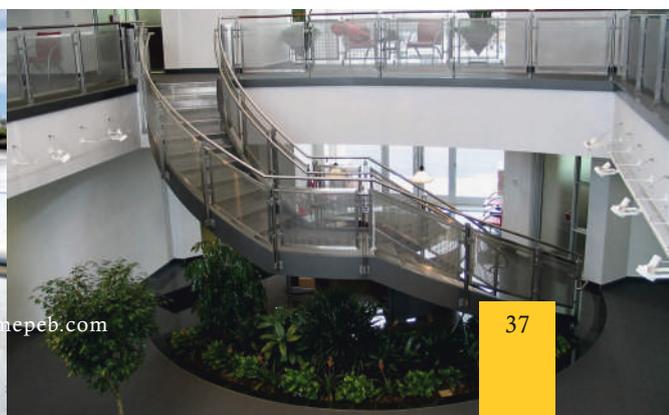
Handrails come in three series - Stainless Steel, Wood & Colour Coated.



Stainless Steel Handrail

It is of significant concern that the material used for handrails is strong and durable. The highest quality stainless steel, 304 grade, is being used in manufacture of the handrails we offer. This grade of steel does not rust or get damaged easily.

WIRE ROPE SYSTEM | STAINLESS WITH WOOD | PRE-ASSEMBLED POSTS | GLASS CLAMPS
WELDABLE GLASS CLAMPS | PRE-ASSEMBLED HANDRAILS | JULIETTE GLASS BALCONY | LED LIGHT SYSTEM





Wooden Handrail

Stainless steel together with exotic and natural woods is another exceptional range of handrails we offer. When combined with stairs made of toughened glass, another area of expertise, exhibits simplicity and grandeur.

RIGHT OR LEFT VOLUTE I RAD I FALLING WREATH I UP-EASING I RISING WREATH
OVER-EASING I LIONS CLAW I MITRE CAMP I END CAP I SWAN NECK

Colour Coated Handrail

Be a lover of tradition or an admirer of contemporary themes, you get it from us. Customise your handrail design with range of colour coat options from Hekur. The customised architectural fractions from hekur have proved to be timeless masterpieces.



Walnut

Wenge

Steam Beech

Natural

White Beech

Orange

Brown Berry

Honey

Rose Wood

Cherry



PRIME POLYCARBONATE CLADDING

Prime offers multi walled poly carbonate cladding sheets of size 5.8m (length) 2.1m (width) with the thickness ranging from 4mm to 10mm. Basically 8 colours like clear (CL01). Translucent (OP 02). Grass Green(Gn 02). Opal (Op 03), blue (BU 01), lake blue (BU 02), Bronze (BZ01). Green(GN01), Grey(Gy01) are available. One of the main benefits of choosing polycarbonate sheet is that an extremely high thermal insulation value can be achieved even with transparency. The product is therefore the most complete solution available to the project designer where "transparency and insulating" applications are concerned.

Multiwall Polycarbonate Sheet Application

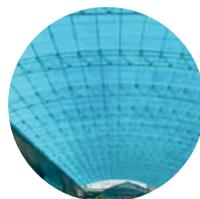
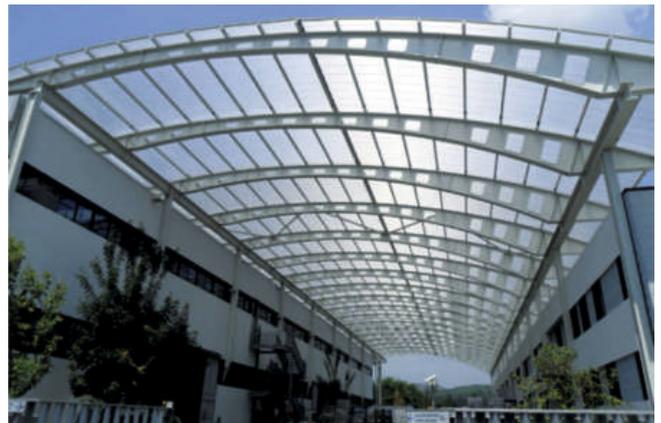
Covering and decorating industrial, residential, commercial and public building

Stadium, gymnasiums and sports clubs.

Skylight for living rooms, swimming pools, courtyards, green houses.

Light boxes, signboards, advertising panels.

Train station roofing, covered bus stops, airport roofing, etc.



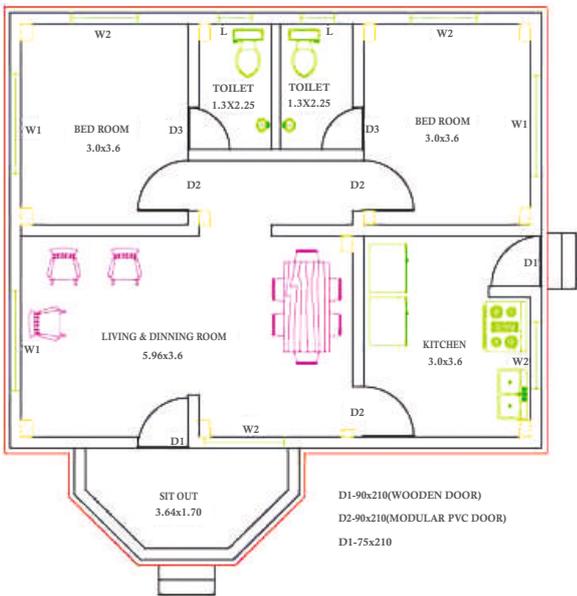
Prime metal building system can supply polycarbonate sheets in thickness from 4mm to 10mm colours subject to availability.

Note: Refer polycarbonate data sheet for more details.



PRIME PRE ENGINEERED VILLAS

We introduce a Prime product as an alternate to sand cement for building highly cost effective, durable, thermal and acoustic insulated residential units. It's made out of injected polyurethane sandwich panel. Exterior and interior faces with polyester coated aluminium or galvalum material. Electrical & Plumbing services can be concealed through the panels. Structure in earth quake resistant. A typical housing unit of 1000 sq.it. can be completed in less than 30 days time Apart from housing residential units, ideal for chalets in tourism resort with difficult terrains to access. Contact us. for further information and different option. Cost ranges from 800-1200/sq.ft based on specification.



PROJECT GALLERY

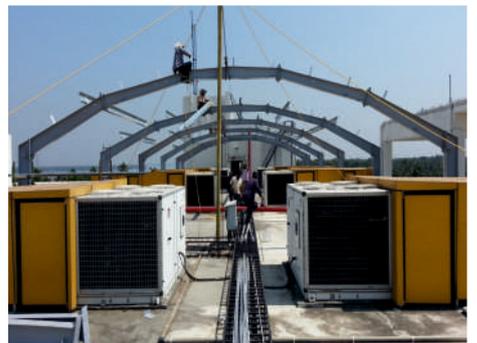












OUR CLIENTS



AUTO ROBOPARK



OUR INSPIRATION

EMPIRE STATE BUILDING-STEEL WONDER OF THE WORLD

102 FLOORS COMPLETED IN 13 MONTHS

102 Floors

1454 feet height

Completion April 11, 1931

Weight 365,000 tons

Started March 17, 1930

Composed of 60,000 tons of steel

Area of Site 79,288 square feet

730 tons of aluminum and stainless steel

Area 254000 msquare

Located at 350 Fifth Avenue Manhattan, New York 10118

Construction begins with 3,000 workers



PRIME GROUP OF COMPANIES

Corp. Office

Thrissur - 680 553, Kerala, India.

Toll Free - 1800 1212 365

E-mail: sales@primepeb.com

www.primepeb.com