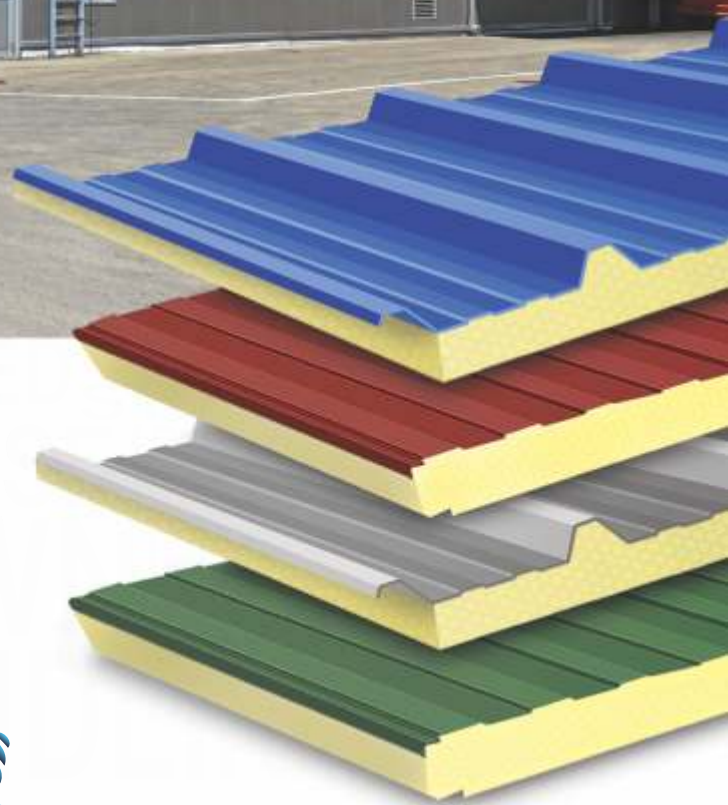
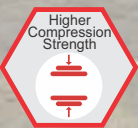




An ISO 9001:2015 Certified Company



PARTITIONS-SEMI GLAZED
COMMERCIAL BUILDINGS
FARM HOUSE
DAIRY
INDUSTRY
COLD STORAGE/
BLAST FREEZERS
FOOD INDUSTRY



SHANKA

SANDWICH PUF PANELS & ROOFING SOLUTIONS

SANDWICH
Puf Panels

EXTERNAL Wall & Roof
INTERNAL Ceiling & Partition Wall



ABOUT US

Our top of the line PUF manufacturing plant spread over 30,000 square feet has machinery imported from Italy and Germany. Currently it has a capacity of manufacturing 9,00,000 square feet of panels per month. Our high quality PUF panels have a wide variety of applications such as portable cabins, low cost housing, prefabricated buildings and inverter and control rooms for solar plants.

PUF panels are extremely sturdy, durable and weather resistant. They are corrosion resistant and can create an airtight space. They are the apt choice for buildings that require insulation and temperature control as they can be customized to maintain temperatures between -50 degrees Celsius to 110 degrees Celsius. They are extremely easy to assemble, dismantle and reuse which also makes it a cost-effective and sustainable solution. They are flexible and can be customized to meet individual project requirements. They are generally used for the construction of offices, hospitals and food storage.





OUR MISSION

To be the finest quality roofing solutions company. SHANKA manufacturing company understands the value of continual improvement and commitment to our most valuable asset, our people. We will strive to be the best in every aspect of our business by utilizing our core competencies, fostering a culture of trust, teamwork and responsibility.



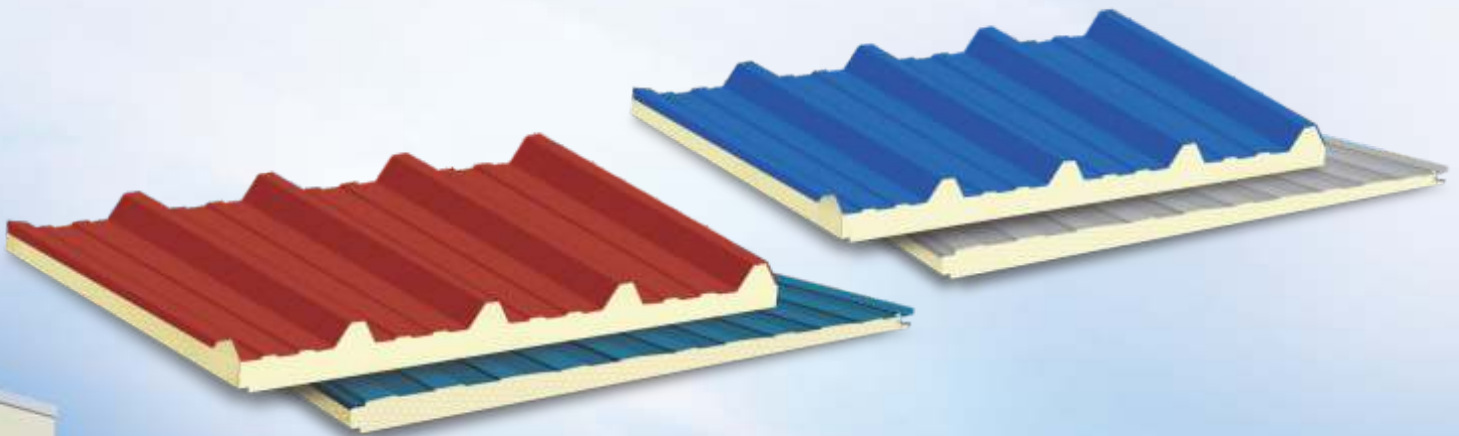
OUR VISION

To have the highest customer satisfaction & to become a leading provider of complete roofing solutions, construction materials in the market. SHANKA aims to offer innovative and sustainable solutions to meet the diverse needs of our customers.



OUR VALUES

- Passion/High Energy/Strong Work Ethic
- Trust/Integrity
- Teamwork/Results Driven
- People Culture





Sandwich PU Roof/Wall Panels

Sandwich Panels, Metal-faced polyurethane sandwich panels are the system of choice today for large industrial buildings refrigerated warehouses, office blocks, exhibition halls, fair pavilions, schools, and sports halls. Polyurethane sandwich panels come complete with specially formed tongue-and-groove joints ensuring a perfect fit and maximum integrity, Assembly is fast, easy, and cost-effective. As a result, these thin, relatively lightweight sandwich panels can safely bridge wide spans. Insulated sandwich puf roof panel.

Shanka Sandwich Panels Manufacturing Process, The top and bottom coil (sheet metal) are clamped onto the plants unwinding unit and fed into the machine. In the first step, "corona system" cleans both reverse sides of the sheet metal using high frequency to remove greases and dirt and to guarantee the best possible subsequent full spread adhesion between foam and sheet metal.

Thereafter the protective films are rolled onto outside of both metal sheets. The sheets are then brought together, the bottom sheet is foamed by the swinging foam head and the top sheet is mechanically steadied. Immediately after that, the panel is fed into the heated drying tunnel where the foam expands to its full volume, binds to the sheets and transforms both sheets to one robust, shear resistant composite structural panel. After leaving the tunnel the panels are cut according to your specification using flying saw/cutter.

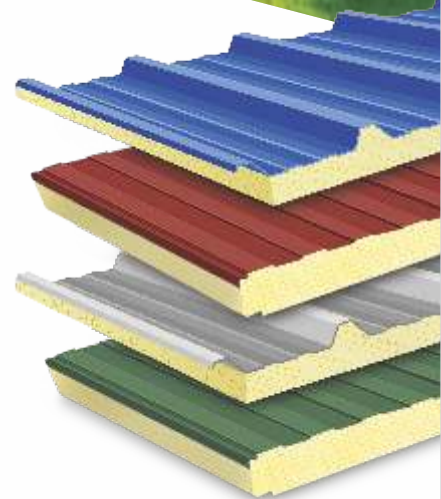
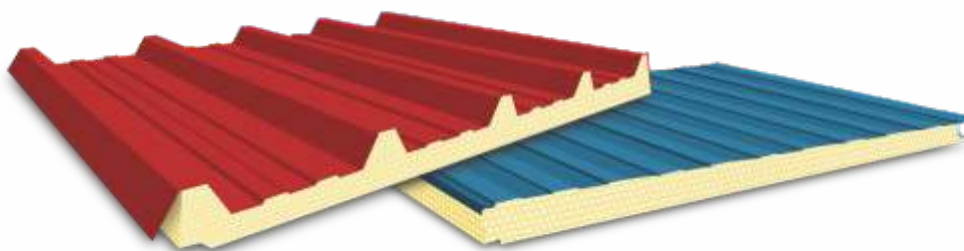
These pre-fabricated elements consist of an inner insulation core between two colour-coated steel sheet layers. They are used in facades, partition walls and ceilings. They are eco-friendly and can be used for a range of applications, including food industry and cleanrooms.



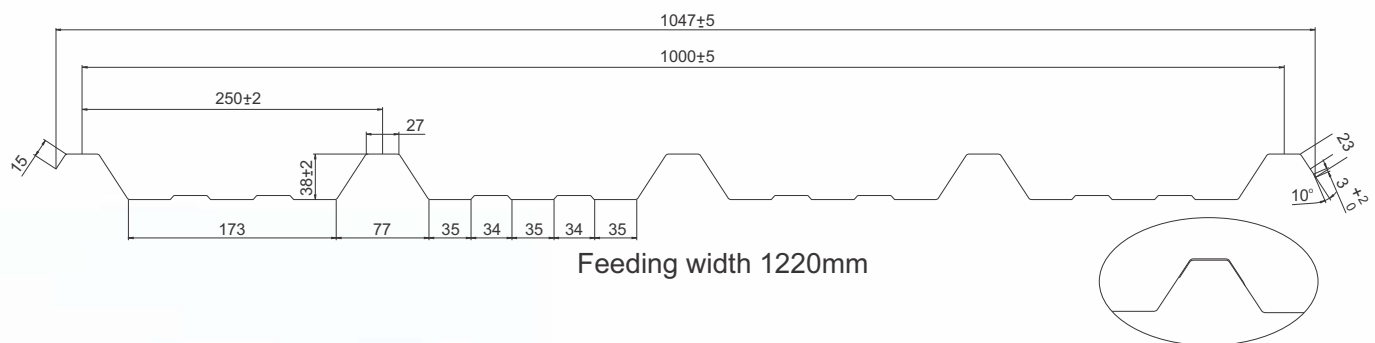


Reduce Your Building's Energy Costs

- Cost-effective construction
- Significant savings in heating costs
- Reduced CO₂ emissions
- Reduce construction cost



Sandwich Roof Panel



Sandwich Wall Panel



Colour Shade Cards



Sky Blue



Torres Blue



Royal Blue



Autumn Red



Terracotta Red



Off-White



Caulifield Green



Mist Green



Bare Galvalume



PPGL - Back Coat





Energy Efficiency

With 80 mm thick sandwich panels with polyurethane rigid foam, the U value is 0.297 W/(mK). In comparison, a solid wall with 24 cm thick masonry and 2 cm plaster walls has a U value of 1.85 W/(mK). Rigid polyurethane foam combines excellent thermal insulation properties with good mechanical strength, making it an outstanding construction material that does not rot, mold-resistant, odorless and non-toxic for all conceivable applications, the foam is resistant to the chemicals typically used in construction and is compatible with most solvent-containing adhesives, paints and wood preservatives. Polyurethane rigid foam is extremely durable and can be installed easily and securely, ensuring cost-effective, efficient construction.

Advantages

- High load bearing capacity at low weight. Excellent and durable thermal insulation. Capacity for rapid erection without lifting equipments.
- Easier installation in hostile weather conditions.
- Easy repair and replacement in case of damage.
- Long life and very low maintenance cost.
- Good sound insulation.
- Reasonable fire reaction and resistance.
- Cost Savings Tongue and groove type joinery system.
- Great energy saver, Fast and easy installation.
- Light weight.
- Space saving.
- Various designs.
- Vivid colours.
- Energy conservation as per ECBC code.
- Easy Applications.

Applications

- Industrial Buildings.
- Partitions-Semi Glazed.
- Commercial Buildings.
- Warehouse/Godown.
- Cold storage/Blast Freezers.
- Farm House.
- Pharmaceutical Manufacturing Units.
- Air Handling Units.
- Poultry Form.
- Dairy Industry.
- Malls/Departmental Stores.

THERMAL CONDUCTIVITY*

EXPANDED CLAY	0.100
STRAW	0.090
WOOD WOOL	0.060
COCONUT FIBER	0.050
CORK SHEET	0.045
MINERAL WOOL	0.040
POLYSTYRENE	0.035
POLYURETHANE	0.024

* IN WATTS PER METER AND KELVIN (W/mK). THE LOWER THE VALUE THE BETTER THE INSULATION.

35 mm PUF is equal to

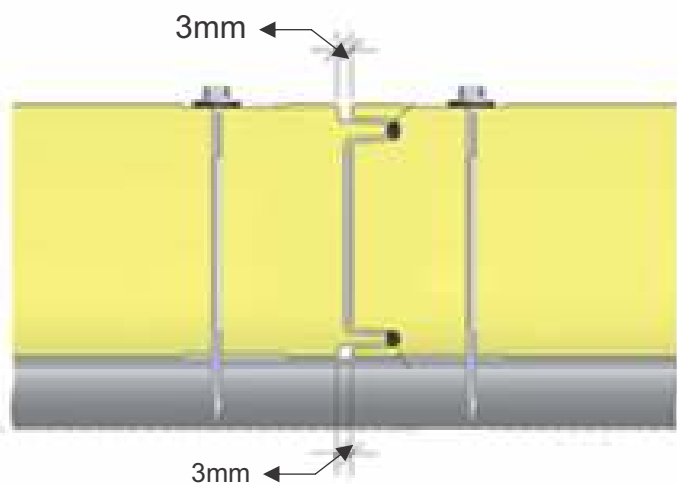
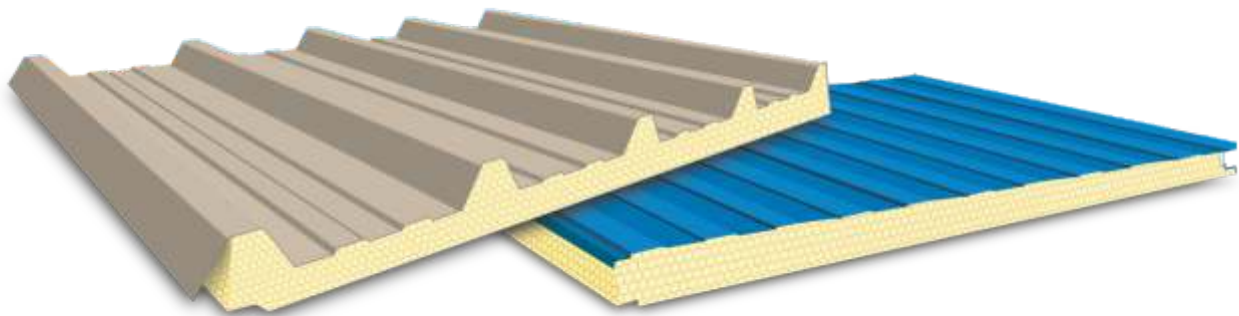
50 mm EPS (Thermocol)
55 mm Glass wool
60 mm Mineral wool
80 mm Fiber board
175 mm Wood
475 mm Concrete
1075 mm Thick Brick work



Cold Storage Wall Panels

Cold storage Panels is a range of panels with PU and with a web joint for the construction of positive/negative temperature for cold storage rooms. The panel has been designed to provide a complete solution to the requirements of the cold storage

industry, providing the following benefits: high thermal resistance, mechanical resistance, dimensional stability, non-water absorbent, lightweight, aesthetically pleasing appearance, durability, and ease and speed of installation.



General Specification for PU – Sandwich Panel

Sl. No.	Characteristics	Specification
1	Product name	PPGI/PPGL - Steel sheet coils
2	Reference standards	ASTM. A 755/(JIS 63312, is 14236, ECCA)
3	Strip thickness (tct) - mm	0.5 top/0.50 bottom (option available)
4	Substrate material	Galume (al - zn alloy) Coating as per astm a792/a 792m with steel base as per astm std.
5	Substrate coating mass	gms/m2, substrate coating 120, azm 150 as per astm std. Massclass
6	Grade designation	gr80/cs type a,b as per astm std.
7	Yield strength - mpa min.	240/ 50 for gr 80.
8	Tensile strength - mpa min.	240/570 for gr 80.
9	Paint type	RMP/SMP/PVDF (SMP & PVDF on MOQ)
10	Paint coating thickness (dft)	RMP coated - top coat 18 to 22 Microns (+5 microns primer), back coat 5 to 8 Microns (including primer). & SMP coated

	Foam Characteristics	Unit	Specification PU
11	Total Foam Density	Kg/m3	40±2kg
12	Core Foam Density	Kg/m3	36±2
13	Compressive Stress At 10% Deformation	Kpa	≥100
14	Young Compression Modulus	Kpa	≥2500
15	Foam Tensile Strength (adhesion)	Kpa	≥100
16	Young Tensile Modulus	Kpa	≥2500
17	Shear Strength	Kpa	≥90
18	Thermal Conductivity - A. @ 50°C Mean Temp. & B. @ 10°C Mean Temp. - Max.	W/m²K	A. 0.03 & B.0.023
19	Horizontal Burning Test	mm	≤125
20	Hot Dimensional Stability At 85+2°C / 100+2°C For 24hrs. - Max.	% % %	Length±2 Width ±2 Thickness±2
21	Cold Dimensional Stability At -25+2°C For 24hrs. - Max.	% % %	Length±2 Width ± 2 Thickness±2
22	Water Vapor Transmission - Max.	ng/pasm	5.5
23	Panel Width Roof	mm	1060 mm
24	Panel Width Wall	mm	1000





Cold Storage Wall Panels

It is well organized Tongue & Groove system which utilizes the Cam locks to achieve superior tightness and insulation. For easy and rapid installation, whilst improving structural strength and thermal efficiency and also offering a clean, smooth aesthetic look Cam lock panel performs Airtight Seal in panels, it's preferred choice for the Cold Storage. It is used Industrial, medical and scientific research industry who demand the ultimate climate and atmosphere control

Cam lock Panels: A cam lock is a device that is embedded at precise locations alongside the edges of our patented reinforced structural insulated panel. The cam lock fasteners come in pairs; a male cam lock latch and a female cam lock receptacle.	Corner Panel: Corner panel is nothing but corner connections with the corner panels are lockable. it aims to ensure not even a single panel is wasted in assembly and providing ease of assembly.	PUF Slabs: PUF slabs are the most economical thermal insulation rigid Polyurethane Foam Materials for various applications in building and all types of industries. It is also used as flooring in the cold storages.	

Temperature Chart

TEMPERATURE	THICKNESS OF PANEL (mm)	THICKNESS OF PANEL
0 to 5 degree	80	Positive
5 to 12 degree	60	Positive
15 & more degree	50	Positive
0 to -10 degree	100	Negative
10 to -20 degree	120	Negative
20 to -40 degree	150	Negative
More than - 40 degree	175	Negative



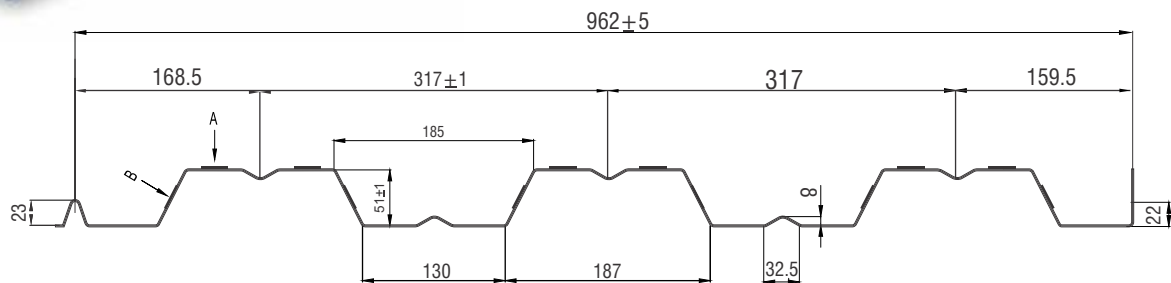
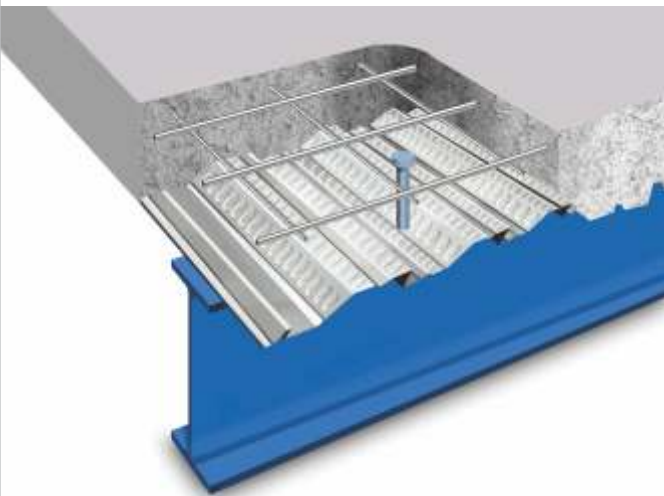


Decking Sheets

Decking Sheets ensure proper distribution of load and play an important role in reducing the loading of roofing on the building. Made of steel or aluminium or alloy they provide safety against leakage and roof cracking. Available in a wide range.

Built for Durability

- High load capacity
- Very good stability
- Exact specifications
- Elegant looks
- All weather resistant
- Excellent heat insulator



Application

- High Rise Buildings
- Multiplexes/Commercial Buildings
- Power Plant Buildings
- Office Buildings
- Mezzanine Floors in Industrial Buildings & Warehouses
- Steel deck for mezzanine floors

Thickness

- 0.8 mm, 1 mm, 1.2 mm and 1.4 mm

Technical Specification

Bade Metal	High Tensile Structural Grade Steel
Coating Mass	90, 120, 180 and 275 Gsm
Coating Standard	IS : 277
Yield Strength	240 MPA
Premier Coating	Minimum 10 Microns
Colour Coating	Premier 10 Microns
Bottom	25 Micron

Available Finish

- Cold Rolled (CR) • Galvanised • Both side primer coated (Galvanised)
- Pre coated galvanised under side giving durable and attractive appearance and minimum future maintenance.

Advantages

- **Reduced concrete usage:** Tensile steel for composite slab construction that cuts down on slab thickness and dead weight of buildings. Providing a more sustainable solution and reducing costs.
- No separate formwork required for slab casting.
- Reduces construction time.
- Technical department at Shankar Sandwich panels offers comprehensive advisory of service on design of composite flooring should queries arise which are not cover by this literature please contacts us.

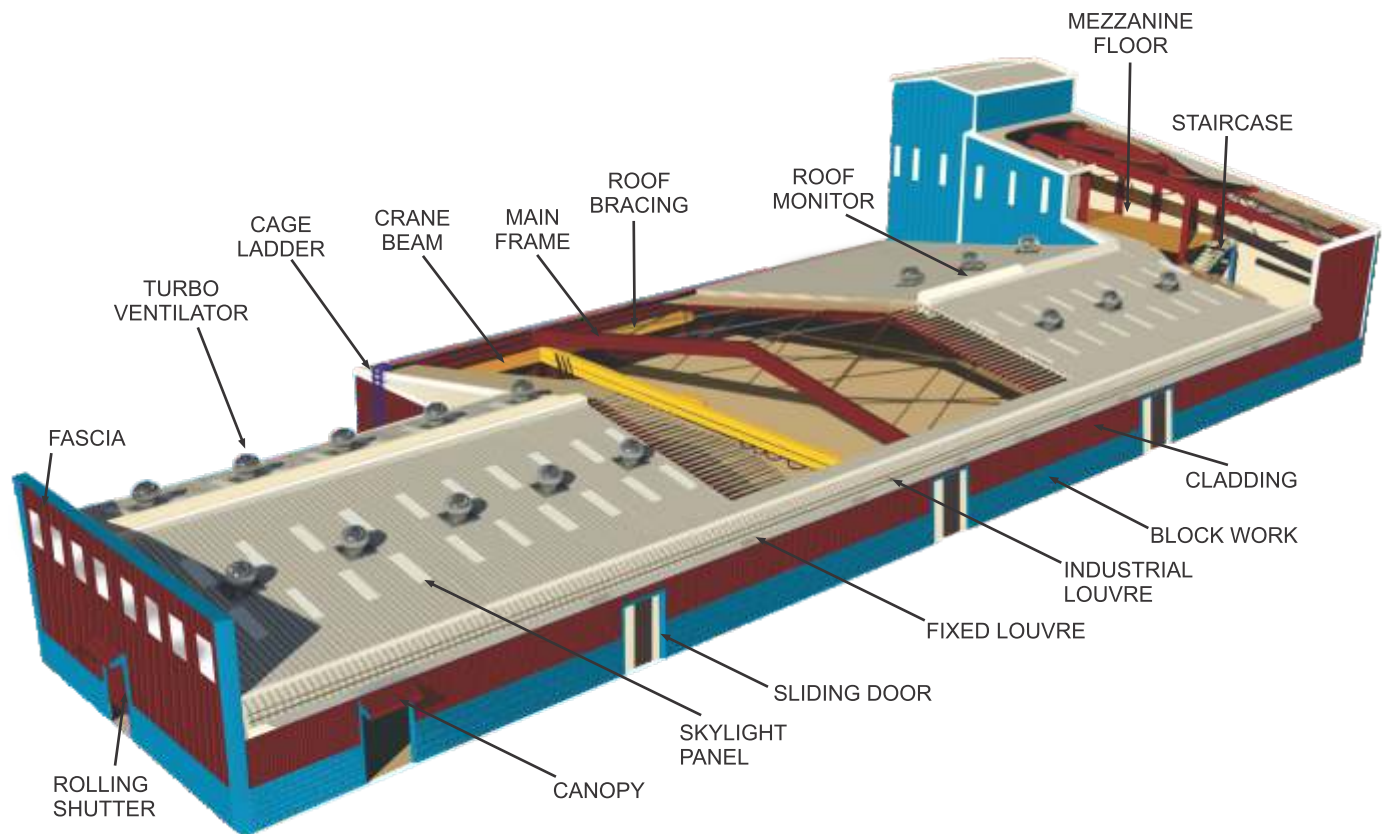
Load Table for Decking Profile

Section Properties (per metre width of the profile)

Nominal thickness	Design thickness	Profile Weight	Area of Steel	Height of neutral axis	Moment of Inertia	Moment carrying capacity	
						Sagging	Hogging
mm	mm	kN/m ²	mm ² /m	mm	Cm ⁴ /m	kN.m/m	kN.m/m
0.8	0.76	0.082	1041	24.69	46.04	4.66	4.55
1.0	0.96	0.103	1302	24.79	57.55	5.80	5.71
1.2	1.16	0.124	1562	24.89	69.06	6.94	6.88

Span in meters	Thickness	Load carrying capacity for various spans in Kg					
		1.0 mtr	1.2 mtr	1.4 mtr	1.6 mtr	1.8 mtr	2.0 mtr
	0.8	2009	1395	1025	784	620	502
	1.0	2512	1744	1281	981	775	628
	1.2	2936	2038	1497	1146	906	731





Pre-Engineered Buildings (PEB)

At a time when demand for ready-made office and residential space is spiraling, pre-engineered building technology has come as a boon to the construction

industry. It offers innovative, hi-tech, and quicker construction thus ensuring efficient, cost effective and speedy completion of projects.

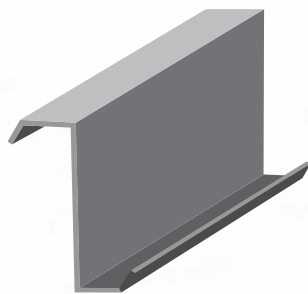




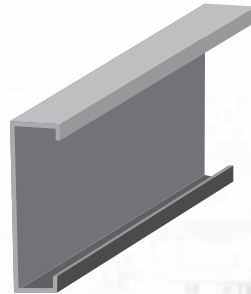
Z & C Purlin

These are secondary members used to support the wall and roof panels. In addition, they play the role of struts that withstand longitudinal loads due to wind and earthquake. Used at the intersections of the sidewall and

roof they increase the frame capacity. Available in two standard finishes, Mild Steel, Galvanized and three standard thicknesses.



'Z' Purlin



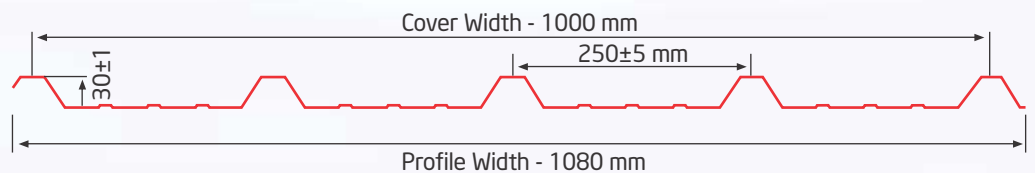
'C' Purlin





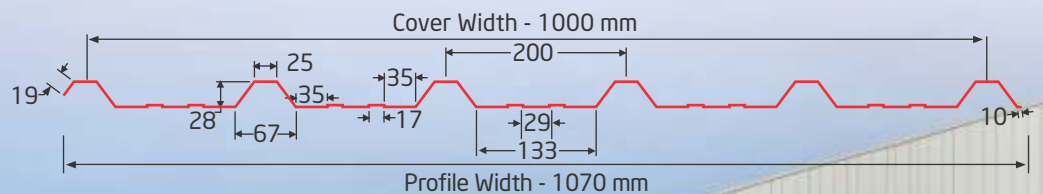
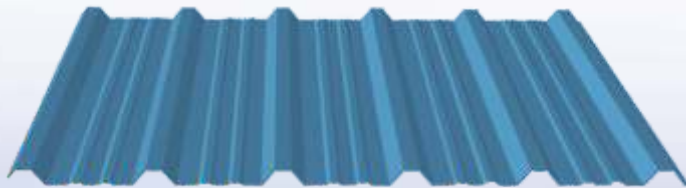
Roof and Wall Sheets

Our Roof and Wall Sheet meet the exact demands of varied markets and are available in a variety of profiles, base metals, substrates and coatings.



Well-Equipped to Meet Every Need

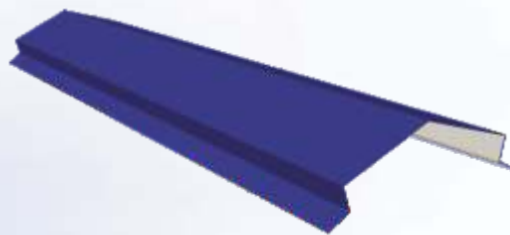
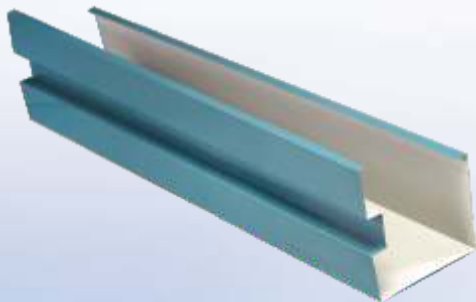
- Panels for metal roof
- Standing seam roof systems
- Insulated panels
- Retrofit roofing systems





Fixing Accessories

Roofing Accessories are designed so as to blend with the appearance of the building. They are fitted to roofing sheets with the help of accessories like hooks, bolts, nuts and screws. We offer a complete range of accessories to simplify installation and enhance the life of the product.



Standard Gutter and Flashings

Gutter flashing is a unique waterproofing tool. It helps keep an area dry by diverting the flow of water. It stops water from seeping into the building. Gutter flashings come in a standard size, but can be customized according to the requirement.

Keep The Building Water-free

- Range of thicknesses and lengths
- Many material choices
- Available in a wide range of colours













SHANKAR GROUP

Since 1992

An ISO 9001:2015 Certified Company

Head Office:

Shankar Commercial Complex,
Nayarkere 4th Cross, Ambalpad, N.H.66.
Udupi - 576 101, Ph. : 0820- 2570810
www.shankargroup.info

Corporate Office :

SHANKAR SANDWICH PANEL PVT LTD
Karnataka Small Scale Industries Association
(KASSIA), #2/106, Magadi Chord Road,
Vijayanagar, Bangalore -560 040,
Ph. : 6366939812
Email : salesshankarsandwichpanel@gmail.com

MANUFACTURING UNITS

Unit 1 - SHANKAR ROOFING SYSTEMS

Plot No. 9 (Part) Shivalli Industrial Area, Manipal - 576 104, Udupi District
Ph. : 9611586501 / 8453854448, Email : shankarroofingsystems@gmail.com

Unit 2 - SHANKAR FAB

Plot No. Q.spl 3 & 4, Door No. 16/152 (55 C) K.I.A.D.B, Shivalli Industrial Area,
Manipal - 576 104, Udupi District Ph. : 9845547732
Email : shankarfab@yahoo.com

Unit 3 - SHANKAR ROOFING SYSTEMS

Plot No. 263-B, Hebbal Industrial Area SY. No. 367, Hebbal Village, Kasaba Hobli,
Mysore - 570 018 Ph. : 7259165555 / 9611586506
Email shankarroofingmysore@gmail.com

Unit 4 - SHANKAR SANDWICH PANELS PVT. LTD.

No. 69-A2,Vasanthanarasapura Industrial Area, 1st Phase, Tumakuru
(Tumkur), Karnataka - 572 128 Ph. : 9148591567 / 6366939817
Email : shankarsandwichpanel@gmail.com
Email : salesshankarsandwichpanel@gmail.com