



Pushpak

Infra Steel Private Ltd





COMPANY PROFILE

Pushpak Group of Companies has been a prominent player in the roofing industry since its inception in 1985. With a rich legacy of over three decades, we have established ourselves as manufacturers, suppliers, and installers of high-quality roofing & infrastructure solutions. We take pride in our robust production capacity, of more than 1,00,000 metric tons per annum, with the dedication and expertise of our 250+ strong workforce allowing us to meet the growing demands of our client. Our unwavering commitment to excellence, innovation, and customer satisfaction has propelled us to become a trusted name in the industry. Our Commitment to Excellence :-

In an unwavering pursuit of providing unparalleled quality to our customers, Pushpak Group has consistently invested in cutting-edge technology and state-of-the-art infrastructure. We have forged partnerships with some of the world's most renowned brands, including JSW, AMNS, TATA BLUESCOPE, HINDALCO and many others.

These collaborations have enabled us to deliver top-notch solutions to a diverse clientele, including multinational corporations, Indian corporate giants, industrial leaders, and government institutions.

Our commitment to maintaining a motivating growth structure, fostering excellent teamwork practices, upholding timely execution policies, and maintaining rigorous quality inspection and supervision systems remains at the core of our organizational ethos. These principles drive us forward as we continue to serve our valued clients with dedication and excellence.

“Thinking of Roofs, Think Pushpak”

Vision

“Be a steel processor with outperforming bench mark in safety , human relations , costs and value creation and be responsible to the society “

Mission

“To lead the global market with quality products and services to create enduring value for customers.”

Our Values

A family-owned business often operates with values that reflect the family's principles, long-term vision, and commitment to success. These values typically contribute to the company's culture, decision-making process, and interactions.

- Integrity : Upholding strong ethical standards, being honest, and acting with integrity in all business dealings.
- Quality : Striving for excellence in products or services to ensure customer satisfaction and loyalty.
- Customer Focus : Putting the needs and satisfaction of customers at the forefront of business decisions.
- Long-Term Vision : Focusing on sustainable growth and success over generations rather than short-term gains.
- Innovation : Embracing creativity and continuous improvement to adapt to changing market dynamics.
- Respect : Valuing all stakeholders, including employees, customers, suppliers, and the community, and treating them with respect.
- Transparency : Being open and honest in communication, particularly when it comes to financial matters and decision-making.
- Teamwork : Encouraging collaboration among family members and employees to achieve common goals.
- Adaptability: Being flexible and open to change, considering different perspectives, and learning from challenges.
- Social Responsibility : Taking responsibility for the impact of the business on the community, environment, and society at large.
- Empowerment : Empowering employees to take initiative, make decisions, and contribute to the success of the company.

Certificates :



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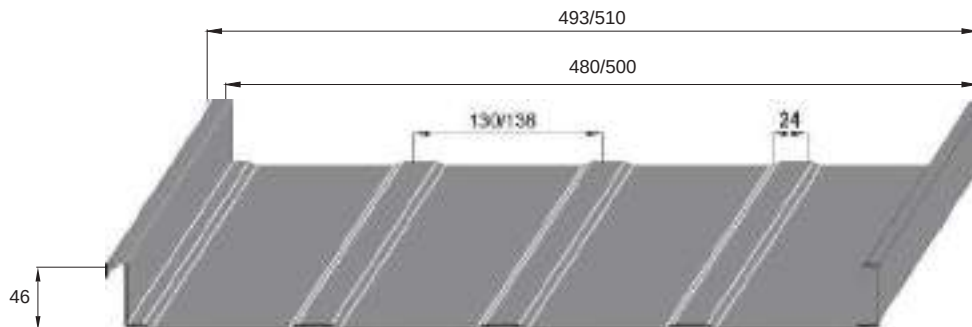
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Pushpak PROSeam - Standing Seam

Advanced Concealed system :

- Pushpak PROSeam represents a futuristic and highly sophisticated concealed profile due to its concealed anchoring system. This design feature allows for unhindered thermal expansion and contraction dynamics. The resulting outcome is a seamlessly impervious roofing system.
- The connecting edges are expertly secured using an exclusive clip arrangement, seamlessly attached directly to the underlying framework without breaching the external weather-resistant layers. This discrete fastening method establishes a robust and stable roof assembly, offering remarkable resilience against the forces of wind uplift. With the absence of penetrating fasteners, the roofing material retains its flawless watertight integrity, even on notably low inclines.
- PushpakPROSeam is ideal for long spans on industrial, commercial and retail buildings and is a perfect roofing system for high wind prone zones.

Pushpak PROSeam480/500 Profile



Technical Specification			
Supply Width	Covered Width	Pitch	Crest Height
493 mm (± 5mm)	480 mm (± 5mm)	130 mm (± 2mm)	46 mm
510 mm (± 5mm)	500 mm (± 5mm)	136 mm (± 2mm)	46 mm

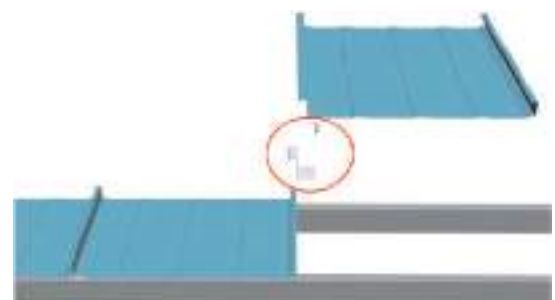
Material Options

Galvalume
AZ100/150/200
Bare or Pre-painted

Gauge (mm)
0.47 - 0.80
Grade (Mpa)
300 - 350

Aluminium
Bare or Pre-painted

Gauge (mm)
0.56 - 0.80

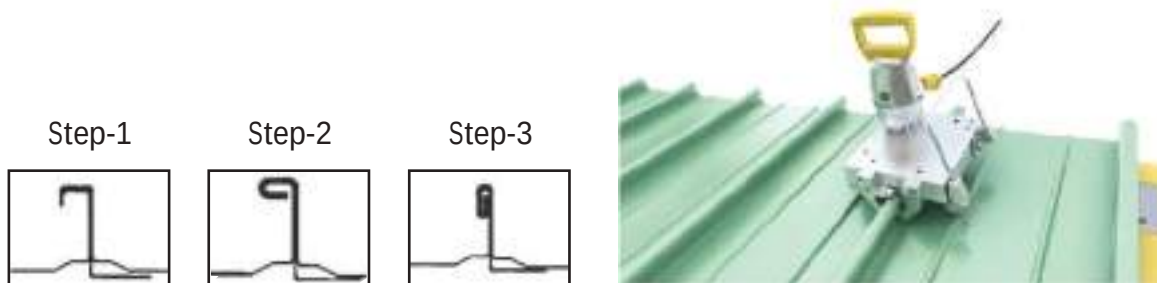


Pushpak PROSeam Profile details :

- The standing seam system is available in a linear configuration with a 480 mm/500mm width. Featuring a seam elevation of 46 mm, this standing seam design is optimized for roofs with minimal slope. The heightened seam contributes to exceptional water runoff capacity and load-bearing performance. This particular profile is suitable for application across diverse climate regions and various architectural styles.
- The number and positions of the mini ribs in the valley of the profile are designed to make the profile stronger and also act as a unique aesthetic feature.
- The exclusive interlocking clasp system of the standing seam integrates a hidden clip that securely anchors the male-female joint along each rib. The availability of both 180-degree and 360-degree seaming choices not only ensures impeccable water resistance but also renders it an ideal roofing solution for regions susceptible to strong winds. Typically, the profile is roll-formed using portable machines right on the construction premises.

PushpakPROSeam – Seaming technology

- The 'Seam' innovation, utilizing a motorized automatic seaming apparatus, effectively seals and fastens the standing seam profile roofing sheet without any intrusive puncturing. The absence of perforations translates to an absence of potential leaks.
- Furthermore, this specialized seam design promotes optimal ventilation, facilitating the evaporation of any moisture that may accumulate on the roof. As a result, the overall roofing structure maintains its pristine condition throughout its lifespan.



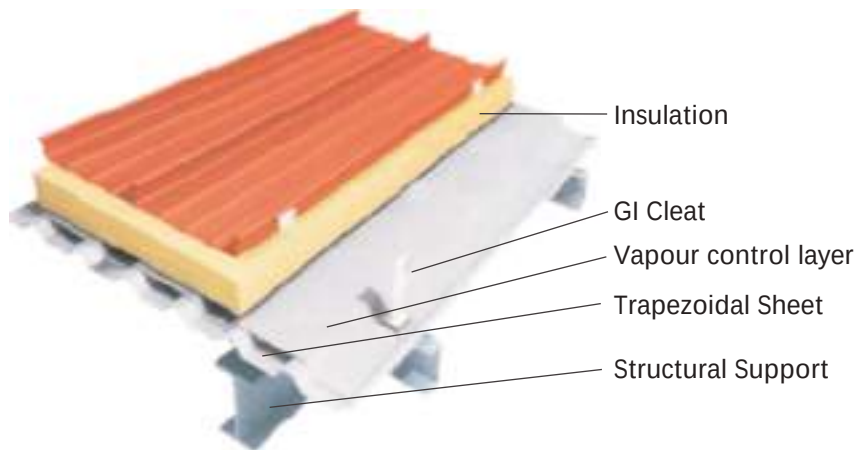
Extended Spans - Reaching 120m and Beyond :

- Onsite Fabrication of Standing Seam: Standing seam panels can be crafted directly at the construction site, surpassing sheet length constraints that may prohibit road delivery. By doing so, the need for end laps is eliminated, mitigating the potential for water infiltration through lap joints.
- For on-site roll forming, the sheets can be shaped using the following methods based on the site's
- Circumstances :
 1. Ground-Level Roll Forming
 2. Roll Forming from Ground to Eaves
 3. Eaves-Level Roll Forming
- In the case of option 3, the roll forming machine must be elevated on scaffolding or a similar platform arrangement.

PushpakPROSeam - Constructing systems

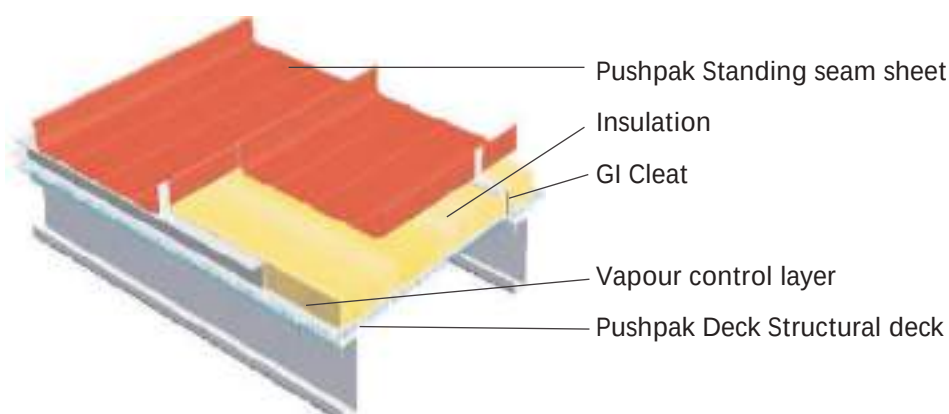
Pushpak PROSeam with Liner Roof System :

- Standing seam roofing systems with liner profiles are primarily favored for new building projects, although they can also serve refurbishment purposes, particularly when the existing roofing has been entirely dismantled.
- The standing seam roofing system with integrated liner proves exceptionally advantageous in scenarios demanding rapid installation. A walkable liner, such as PushpakPROLine can be swiftly positioned to offer immediate weather protection, facilitating the continuation of other activities beneath. Subsequently, the remaining roofing elements, including the standing seam panels, can be seamlessly integrated without causing disruptions to the crucial timeline of the construction schedule.
- The profile and thickness of PROSeam roof sheet will be determined by the external loads and purlins spacing.



Pushpak PROSeam with underdeck insulation

- The standing seam roofing system with subdeck insulation comprises a standing seam exterior panel, insulation layer, vapour control membrane, and a galvanized wire mesh positioned beneath the insulation for reinforcement. The standing seam outer panel is secured using galvanized clips, firmly attached to the underlying structural support.
- The standing seam panels with subdeck insulation roofing solution offers a cost-effective alternative suitable for a wide range of industrial, commercial, recreational, retail, and residential structures. This system is particularly well-suited for situations requiring an expansive rafter-to-rafter roof design, leading to notable reductions in structural steel usage.
- The galvanized wire mesh, typically sized at 50 x 50 mm or 75 x 75 mm and possessing a thickness of 1.5 mm, is typically positioned over the galvanized purlins. Above the wire mesh lies a layer of Rockwool or Glass wool insulation featuring an aluminium foil backing. This arrangement offers exceptional performance in terms of both sound and heat insulation.



PushpakPROSeam Technical

- **Sound Control:** Standing seam roof systems can be adapted to address diverse acoustic needs. This can involve integrating additional elements like high-density insulation, acoustic panels, and flexible membranes to enhance sound reduction capabilities. Another approach is to perforate the liner, enhancing sound absorption performance for improved acoustic outcomes.
- **Rainfall-Induced Disturbance:** Within all PushpakPROSeam roofing configurations, the uppermost insulation layer typically consists of a mineral fiber insulation with a lower density. This insulation layer is slightly compressed against the underside of the PROSeam outer sheet.



- **Aerodynamic Lifting Forces:** PROSeam standing seam roofing solutions exhibit exceptional prowess in countering aerodynamic lifting forces. This is attributed to its distinctive clip mechanism and innovative zip-up technology. The clip effectively anchors the roofing system to the underlying steel structure. The robustness of this connection, coupled with the secure zipping of side laps, results in the creation of a discretely fastened roofing enclosure that boasts remarkable structural integrity.
- **Engineering Expertise and Assistance:** Leveraging cutting-edge CAD technology, the PushpakPROSeam engineering team is fully equipped to address the intricate demands of even the most elaborate roof designs, ensuring meticulous attention to every facet. Our proficient staff collaborates closely with clients, customizing specifications to align seamlessly with individual project requisites. This includes encompassing all essential calculations, assembly directives, and technical guidance, guaranteeing the fulfillment of both specification and delivery mandates. We offer an all-encompassing technical consultation and support service, catering to architects, designers, specifiers, and our accredited PROSeam Installation partners. Our services encompass building design, product application, and on-site execution guidance, spanning from the design phase through project culmination and beyond.



- **Demonstrated Excellence:** PROSeam delivers a system characterized by exceptional quality and performance, fully aligned with building regulation stipulations. This is fortified by a manufacturing protocol that meticulously adheres to the most rigorous quality benchmarks, whether executed within the factory or at the project site.

WHY Pushpak PROSeam ?

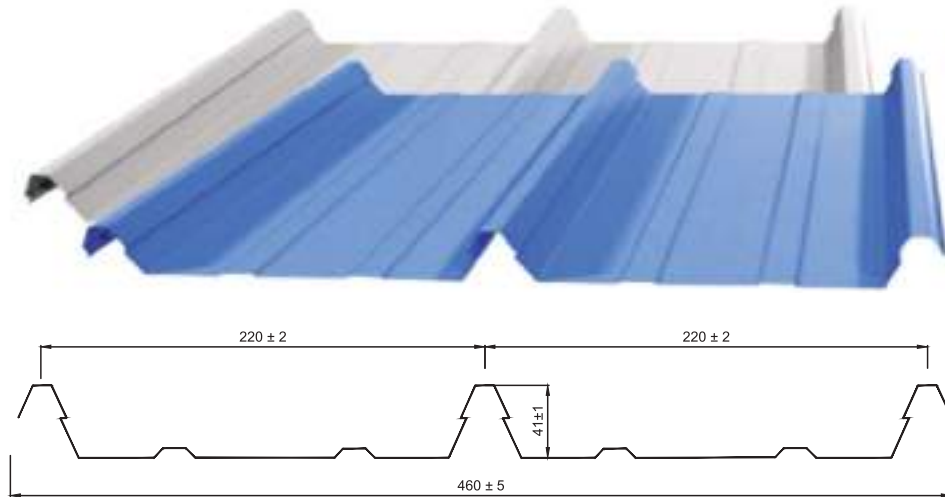
- Superior wind resistance
- Zero penetration - zero leaks. Cutting-edge seaming innovation
- Advanced, on-site manufacturing feasible
- Inherent thermal expansion and contraction
- Lightweight - reducing structural demands
- Outstanding thermal and sound insulation
- Hassle-free maintenance across the entire lifespan



Pushpak PROClip460 - Clip Lock Profile

• Pushpak PROClip 460 offers a smart design that secures effortlessly to roof purlins or wall girts using concealed fixing clips, eliminating the need for fastening holes through the steel sheets. It is versatile, serving as an excellent roofing solution for large-span factories, warehouses, commercial spaces, educational institutions, residences, and recreational buildings.

[Pushpak PROClip460 - Clip Lock Profile sheet](#)

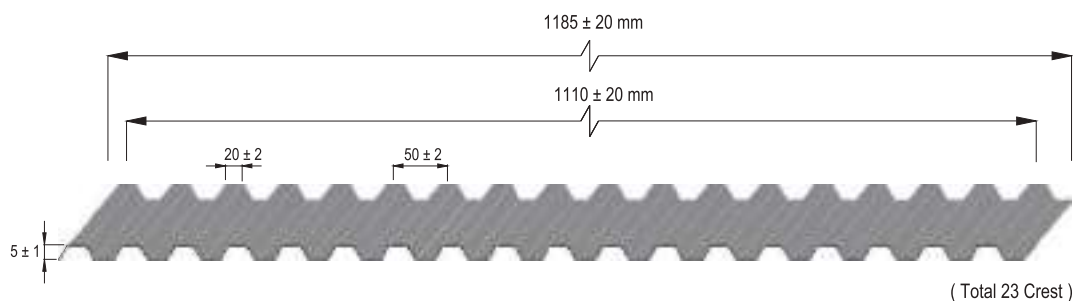


Technical Specification			
Supply Width	Covered Width	Pitch	Crest Height
460 mm (± 5 mm)	440 mm (± 2 mm)	220 mm (± 2 mm)	41 mm (± 1 mm)

Pushpak PROLine - Liner Profile Sheet

• Pushpak PROLine is an attractive, slightly fitted wall & ceiling cladding for exterior and interior use, on straight or curved surfaces PushpakProLine is manufactured from high strength steel with longitudinal flutes that provide rigidity and strength while retaining flexibility across its width.

[Pushpak PROLine- Liner Profile Sheet](#)



Technical Specification				
Supply Width	Covered Width	Pitch	Crest Height	Crest Width
1185 mm (± 20 mm)	1110 mm (± 20 mm)	50 mm (± 2 mm)	5 mm (± 1 mm)	20 mm (± 2 mm)

Pushpak PRO - Aluminium Profile

Pushpak PRO - Aluminium Profile sheets Extremely light and a high strength-to-weight ratio.

- Aluminum is an increasingly popular choice for use in installations and buildings. It is corrosion-resistant in almost any kind of environment. Even in highly corrosive industrial environments, it is resistant to fumes and vapors of organic compounds and to chemicals like ammonia, carbon dioxide, and acids such as hydrochloric acid, nitric acid, and sulphuric acid. Such corrosion resistance gives the metal a long life and keeps it looking good throughout its life.
- The shine and brightness of aluminum liven its surroundings, and, because it doesn't stain, discolor, or rot, it keeps its brightness and shine for a long time. Aluminium corrugated sheets can take a variety of finishes, colors, and textures, which protect them and further enhance their appearance. An aluminum structure can be easily dismantled, transported, and reassembled in a new location.
- Though the metal is a good conductor of heat, its high reflectivity for radiant heat and light (75 to 80 percent when new, 60 percent after several years) keeps the interiors of aluminum buildings from five to eight degrees celsius cooler in summer, while its low emission rate cuts heat loss in winter.



Aluminium roofing sheets are an excellent choice for use in installations and buildings, and here's why. Firstly, these sheets are extremely lightweight while having a high strength-to-weight ratio. This means that they can be transported and installed with ease. Secondly, Aluminium roofing sheets are superior in terms of corrosion resistance. They can withstand almost any kind of environment, including highly corrosive industrial environments. Even when exposed to fumes and vapors of organic compounds and chemicals like ammonia, carbon dioxide, hydrochloric acid & nitric acid, Aluminium roofing sheets remain resistant. This makes them highly durable and allows them to maintain their appearance throughout their life.

- Moreover, aluminium roofing sheets have a shiny and bright appearance that liven up their surroundings. They do not stain, discolour, or rot, which means that they can maintain their brightness and shine for a long time. Additionally, aluminium corrugated sheets can be customized with a variety of finishes, colours, and textures that not only enhance their appearance but also protect them from the elements.

An Aluminium structure can be easily dismantled, transported, and reassembled in a new location. This makes aluminum roofing sheets an ideal choice for situations where mobility and flexibility are required.

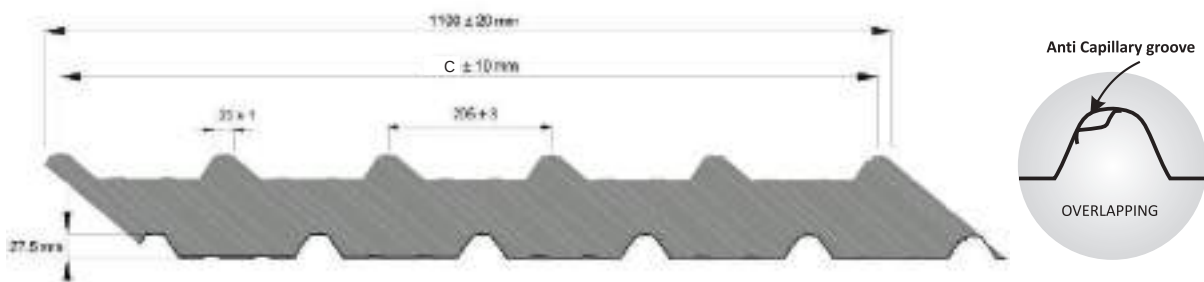
- Although aluminium is a good conductor of heat, its high reflectivity for radiant heat and light keeps the interiors of aluminium buildings cool in summer. Its low emission rate also cuts heat loss in winter, making it an energy-efficient solution.
- Finally, aluminium roofing sheets are easy to maintain and wash. Their durability and resistance to corrosion mean that they require minimal upkeep, allowing for hassle-free and cost-effective maintenance.

Pushpak PROGuard - Thermo Guard Sheets

- The simplest and easiest way of adding shed insulation is Pushpak PROGuard sheet. It is a durable, lightweight and resilient material for fast track projects. It works by trapping heat due to the Polyethylene foam. Thermoguard sheet has property of shock absorption and vibration damping. It has reflective aluminium foil which reduces heat transfer by radiation. This is one of the cheapest methods of insulation and best solution for costly Sandwich Puff Roof panel. Thermoguard sheet is reliable under every circumstance and it can easily deal with tropical temperatures as well as the frosty cold.
- Thermo guard gives you the best quality of roof profile sheet with customised metal properties like thickness, GSM, Yield strength etc. It overcomes the discomfort and environmental damage brought by glass fibre and epispastic materials, it also resist ultraviolet radiation that can penetrate through sheet iron, concrete, wood and other common heat insulation materials.



Pushpak PRO1100 - Profile Sheet



Technical Specification For 245 MPa

Supply Width	Covered Width (C)	Pitch	Crest Height	Crest Width
1100 mm ($\pm 20 \text{ mm}$)	1025 mm ($\pm 10 \text{ mm}$)	205 mm ($\pm 3 \text{ mm}$)	27.5 mm ($\pm 2 \text{ mm}$)	25 mm ($\pm 1 \text{ mm}$)

Technical Specification For 550 MPa

Supply Width	Covered Width (C)	Pitch	Crest Height	Crest Width
1100 mm ($\pm 20 \text{ mm}$)	1040 mm ($\pm 10 \text{ mm}$)	208 mm ($\pm 3 \text{ mm}$)	27.5 mm ($\pm 2 \text{ mm}$)	25 mm ($\pm 1 \text{ mm}$)

MATERIAL SPECIFICATIONS

PRE PAINTED GALVANISED IRON (PPGI)

- Coating on : Hot Dip Galvanised Iron
- Thickness : Standard 0.50mm
(Optional 0.40mm to 0.80mm)
- Zn Coating (GSM) : Zn 80, Zn 120, Zn 275
- Paint Systems : Regular Modified Polyester Paint (RMP)
(Optional SMP, SDP & PVF2)
- Yield Strength : 245 MPa (optional 345MPa, 550 MPa)
- Top Coat (Exposed Surface) : 15 to 20 microns
- Bottom Coat : 5 to 7 microns.

PRE PAINTED GALVALUME STEEL SHEETS (PPGL)

- Material Conform to : IS 15965
- Coating : Galvalume (Aluminium + Zinc)
- Thickness : Standard 0.50mm
(Optional 0.40mm to 0.80mm)
- Coating (GSM) : AZ 150 / AZ 200
- Paint Systems : Regular Modified Polyester Paint (RMP)
(Optional SMP, SDP & PVF2)
- Yield Strength : 550MPa (optional 345MPa, 245MPa)
- Top Coat (Exposed Surface) : 25 Microns
- Bottom Coat : 9 Microns

GALVALUME MILL FINISH (BARE GALVALUME)

- Material Confirm to : IS 15961
- Coating on : Cold Rolled Steel
- Thickness : Standard Thickness of 0.47mm TCT
(Optional 0.45mm to 0.80mm)
- AL-Zn Coating (GSM) : AZ 150 / AZ 200
- Yield Strength : 550 MPa (optional 345 MPa)

AVAILABLE LENGTH

Supplied in maximum length up to 13 mtrs.

Features :

- 1) Easy to install. Minimizes labor fatigue and increases productivity.
- 2) Increases machine life by reducing heating.
- 3) Dust, odour, moisture free. Fire retardant.
- 4) Anti-radiation and anti-vibration. Corrosion resistant.
- 5) High reflectivity.
- 6) Heat and Sound insulation.

Applications :

- 1) Cold rooms.
- 2) Pharma Companies, textile companies.
- 3) Underdeck insulation.
- 4) Manufacturing units and industrial shades.

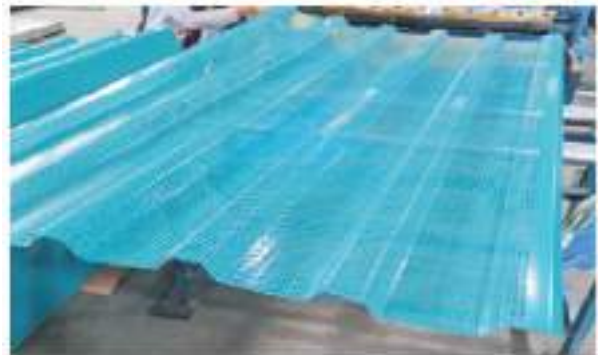
Technical Properties	Specifications
Material	PPGI/PPGL Sheet with PE foam (one sided aluminum foil)
PPGI/PPGL sheet Thickness	0.40mm to 0.80 mm TCT
Foam Thickness	6.00 mm to 20 mm
Volume	325 cm ³
Density	25 kg / m ³ to 35kg / m ³
Emissivity	3 - 5 %
Reflectivity	95 – 97 %
Thermal Conductivity	0.02998 W/ mK
Fire Retardant	Yes
Operating Temperature	-10°C to 60 °C
Noise reduction	7 to 8 dB
Corrosion Resistance	No visible sign of corrosion



Pushpak PROWind sheets

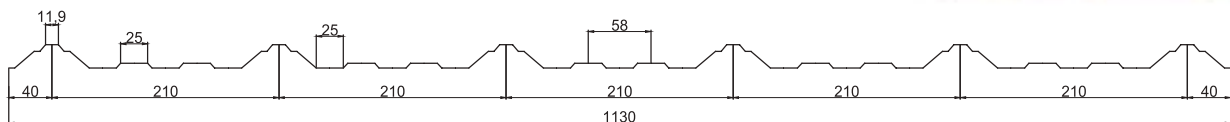
Pushpak PROWind sheets are made through a superior metal punching process.

- A perforated sheet employed as a windscreen in the construction of high-rise buildings plays a crucial role in optimizing both structural integrity and environmental comfort. Crafted from durable materials such as metal alloys or advanced composites, this specialized sheet is designed with a pattern of precisely spaced perforations.
- The primary function of the perforated windscreen is to attenuate the impact of powerful winds on the building's exterior. Positioned strategically, it forms a protective barrier that helps to minimize wind loads and turbulence, safeguarding the structure against potential damage caused by extreme weather conditions.
- Simultaneously, the carefully engineered perforations enable controlled airflow, preventing the creation of wind pockets or vortices that can adversely affect the building's stability. This aspect is particularly crucial in high-rise constructions, where wind forces amplify with elevation.
- The use of perforated sheets as wind screens can contribute to improved safety for construction workers. The controlled airflow through the perforations helps mitigate wind-related hazards, providing a safer working environment at elevated heights.



Pushpak PRO-UPVC Profile

- Pushpak PRO-UPVC Profile is based on the polyvinyl chloride polymer, however, in order to make the material suitable for use as a roof, a number of different additives and stabilizers are used.
- The UPVC Roofing sheets are very good for all type of Industries especially for food, pharma and chemical industries and substitute for metal roof to avoid weather corrosion & chemical corrosion.



[Trapezoidal Wave Profile Drawing](#)

Unique Features :

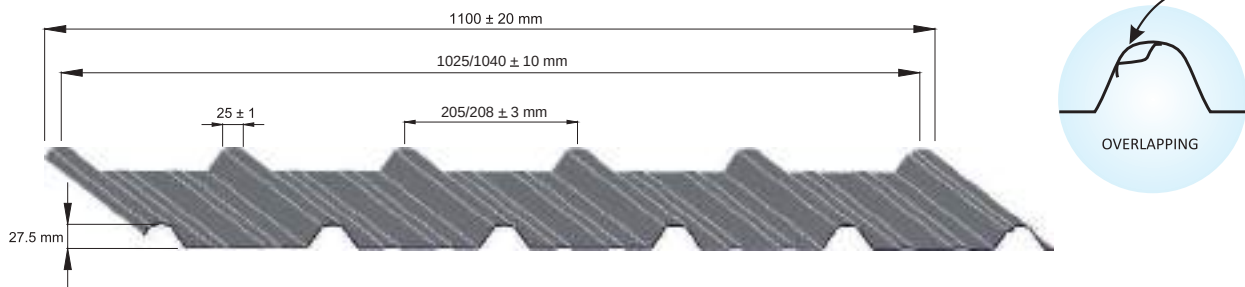
- Chemical Corrosion Resistance - UPVC Roofing Material has excellent resistance to acids, alkalis, salts, sulfur, HCL, and NaOH solutions, making it an absolute corrosion-proof material.
- Heat Insulation - UPVC Roofing Sheet has very good heat insulation characteristics, with a K-Value of 0.1022 W/mK.
- Sound Insulation - Pushpak PRO-UPVC Roofing Material provides excellent protection from external sounds and noise, including rain sound.
- Fire Retardant - UPVC roof sheet is a fire retardant material, with a V0 grade as per ASTM. A fire retardant is a substance that is used to slow or stop the spread of fire or reduce its intensity.
- Strength - Load Bearing Tests have shown the high load-bearing capacity of the UPVC roofing material, making it a very safe and easy roofing material to install and maintain, roofing also shows high flexural strength.



Pushpak PRO1100 - Hi-Rib Profile

- Pushpak PRO1100 sheet is a type of roofing or cladding sheet that features a trapezoidal shape, with parallel sides and non-parallel top and bottom edges. It is commonly used in industrial, commercial, and agricultural buildings as a roofing or wall cladding material. Trapezoidal profile sheets are typically made from metals such as steel or aluminum and are known for their strength, durability, and cost-effectiveness.
- Pushpak PRO1100 profile sheets are widely used in commercial and industrial construction due to their cost-effectiveness, ease of installation, and reliability. They offer a practical solution for covering large roof spans and can withstand various weather conditions, making them a popular choice for a wide range of buildings. Additionally, their modern and clean appearance makes them suitable for architectural designs that require both functionality and aesthetics.

Pushpak PRO1100 - Profile Sheet



Technical Specification For 245 MPa

Supply Width	Covered Width (C)	Pitch	Crest Height	Crest Width
1100 mm (± 20 mm)	1025 mm (± 10 mm)	205 mm (± 3 mm)	27.5 mm (± 2 mm)	25 mm (± 1 mm)

Technical Specification For 550 MPa

Supply Width	Covered Width (C)	Pitch	Crest Height	Crest Width
1100 mm (± 20 mm)	1040 mm (± 10 mm)	208 mm (± 3 mm)	27.5 mm (± 2 mm)	25 mm (± 1 mm)

MATERIAL SPECIFICATIONS

PRE PAINTED GALVANISED IRON (PPGI)

- Coating on : Hot Dip Galvanised Iron
- Thickness : Standard 0.50mm
(Optional 0.40mm to 0.80mm)
- Zn Coating (GSM) : Zn 80, Zn 120, Zn 275
- Paint Systems : Regular Modified Polyester Paint (RMP)
(Optional SMP, SDP & PVF2)
- Yield Strength : 245 MPa (optional 345MPa, 550 MPa)
- Top Coat (Exposed Surface) : 15 to 20 microns
- Bottom Coat : 5 to 7 microns.

PRE PAINTED GALVALUME STEEL SHEETS (PPGL)

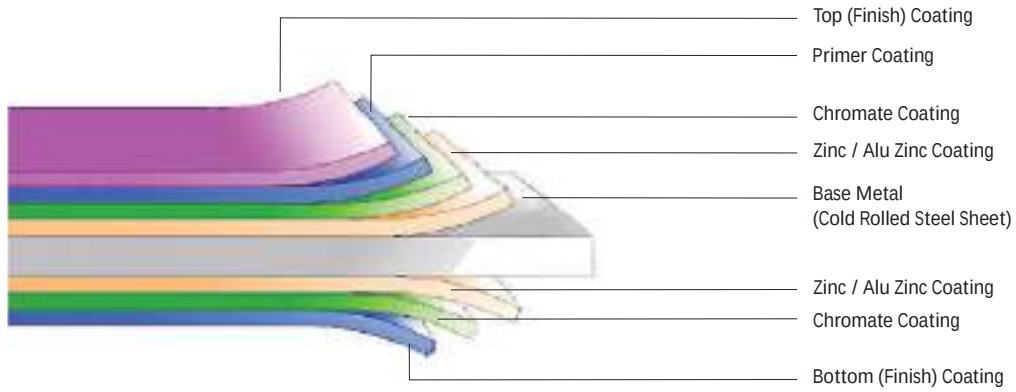
- Material Conform to : IS 15965
- Coating : Galvalume (Aluminium + Zinc)
- Thickness : Standard 0.50mm
(Optional 0.40mm to 0.80mm)
- Coating (GSM) : AZ 150 (optional AZ 200)
- Paint Systems : Regular Modified Polyester Paint (RMP)
(Optional SMP, SDP & PVF2)
- Yield Strength : 550MPa (optional 345MPa, 245MPa)
- Top Coat (Exposed Surface) : 25 Microns
- Bottom Coat : 9 Microns

GALVALUME MILL FINISH (BARE GALVALUME)

- Material Confirm to : IS 15961
- Coating on : Cold Rolled Steel
- Thickness : Standard Thickness of 0.47mm TCT
- AL-Zn Coating (GSM) : AZ 150 (optional AZ 200)
- Yield Strength : 550 MPa (optional 345 MPa)

AVAILABLE LENGTH

Supplied in maximum length up to 13 mtrs.



DETAILS OF PROPERTIES AND LOAD CAPACITIES FOR PERMISSIBLE DEFLECTION AND STRESS

PLACEMENT : THREE SPANS CONTINUOUS 1100 Profile (YS-250) Thk. = 0.4mm to 0.8mm

Sr.No.	Thickness in mm	Moment of Inertia cm ⁴	Section Modulus		Permissible load in Kg/sqm for span									
			Top Zt cm ³	Bottom Zt cm ³	1.0m	1.2m	1.3m	1.4m	1.5m	1.6m	1.7m	1.8m	1.9m	2.0m
1	0.40	4.60	2.25	6.48	337	234	199	172	150	131	116	104	104	84
2	0.45	5.14	2.52	7.23	378	262	223	192	168	147	130	116	116	94
3	0.50	5.67	2.78	7.96	417	289	246	212	185	162	144	128	128	104
4	0.55	6.20	3.04	8.70	456	316	269	232	202	178	157	140	140	114
5	0.60	6.73	3.31	9.43	496	344	293	253	220	193	171	153	153	124
6	0.70	7.75	3.81	10.84	571	396	338	291	254	223	197	176	176	142
7	0.80	8.75	4.30	12.20	645	447	381	329	286	251	223	199	199	161

PLACEMENT : THREE SPANS CONTINUOUS 1100 Profile (YS-550) Thk. = 0.4mm to 0.8mm

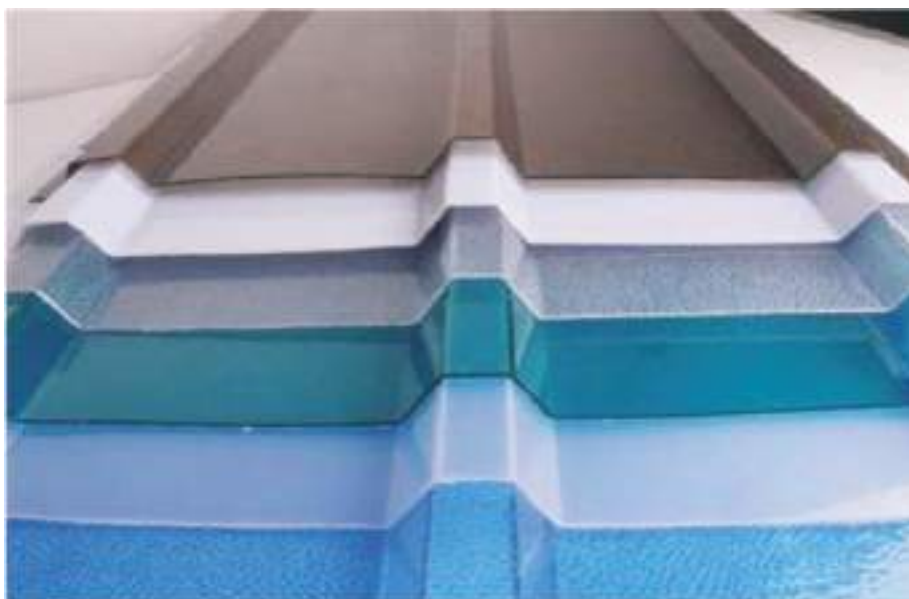
Sr.No.	Thickness in mm	Moment of Inertia cm ⁴	Section Modulus		Permissible load in Kg/sqm for span									
			Top Zt cm ³	Bottom Zt cm ³	1.0m	1.2m	1.3m	1.4m	1.5m	1.6m	1.7m	1.8m	1.9m	2.0m
1	0.40	4.60	2.25	6.48	742	515	439	378	330	290	256	229	205	185
2	0.45	5.14	2.52	7.23	831	577	492	424	369	324	287	256	230	207
3	0.50	5.67	2.78	7.96	917	637	542	468	407	358	317	283	254	229
4	0.55	6.20	3.04	8.70	1003	696	593	511	445	391	347	309	277	250
5	0.60	6.73	3.31	9.43	1092	758	646	557	485	426	377	337	302	273
6	0.70	7.75	3.81	10.84	1257	873	743	641	558	491	435	388	348	314
7	0.80	8.75	4.30	12.20	1419	985	839	723	630	554	491	437	393	354



Pushpak PROPolycarbonate Sheet

- Pushpak PROPolycarbonate Sheet are known for their high-light transmission, allowing natural daylight to enter the interior spaces. This feature can reduce the need for artificial lighting during the day, leading to energy savings.
- UV Protection : Polycarbonate profile sheets are coated with UV-resistant layers to prevent degradation and maintain clarity over time, even in intense sunlight.

Polycarbonate profile sheets are commonly used for applications such as roofing, skylights, canopies, and greenhouses. They are an attractive choice for buildings where natural light is desired, and where impact resistance and weather durability are essential. Due to their versatility and excellent performance characteristics, polycarbonate profile sheets continue to gain popularity in modern construction and architectural designs.



Pushpak PROCrimp - NLC/Crimping Sheets

- Curved sheets, also known as curved metal panels or curved roofing sheets, are specially designed metal roofing or cladding panels that are pre-formed to have a curved or arched shape. Unlike traditional flat roofing or cladding materials, curved sheets offer unique design possibilities and are often used to create visually striking and architecturally appealing structures. While curved sheets add an attractive and contemporary look to buildings, they may require specialized installation techniques and skilled labor.
- It's essential to work with experienced professionals and manufacturers who can provide custom solutions and ensure the proper installation of curved metal panels to achieve the desired aesthetic and performance.



Pushpak PROCrimp - Hood Covers

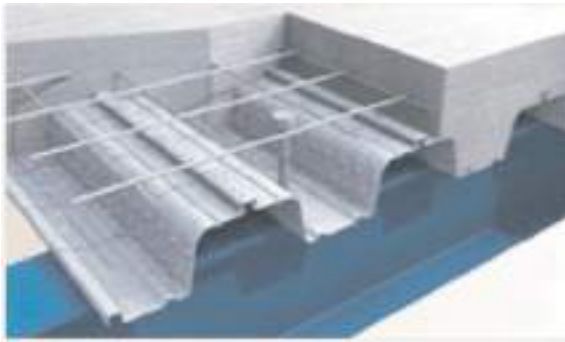
- A metal hood cover for a conveyor belt is a protective enclosure or housing made from metal materials that is used to cover and protect conveyor belts in industrial settings. Conveyor belts are used for transporting various materials and products within factories, warehouses, manufacturing plants, and other industrial facilities.
- The metal hood cover helps contain the materials being transported on the conveyor belt. This containment prevents spillage, dust, and debris from escaping the conveyor, ensuring a cleaner and safer working environment.
- Metal hood covers for conveyor belts are typically custom-designed and fabricated to fit the specific dimensions and requirements of the conveyor system. They may feature access doors or inspection panels for maintenance purposes, and they can be equipped with ventilation systems to remove any buildup of heat or fumes.



Pushpak Structural Deck

Pushpak Structural Deck is employed as a highly efficient composite floor system. The steel deck profile sheet features a ribbed profile with strategically placed embossments, facilitating a secure interlock with the concrete slabs. This innovative interlocking design results in the formation of a robust reinforced concrete slab. Notably, this composite slab serves a dual role, functioning both as a permanent formwork and as a structurally advantageous element for positive reinforcement.

- Features : The versatility of Pushpak Structural Deck is evident in its wide range of deck sheet sizes and thicknesses, offering adaptability to diverse construction demands and load prerequisites.
- 1. Beyond its exceptional functionality, these deck sheets contribute to an aesthetically pleasing flooring solution, while their user-friendly installation process adds to their appeal.
- 2. Designed to accommodate a spectrum of loads, the deck sheets are meticulously evaluated for their load-bearing capabilities, ensuring optimal structural performance.
- 3. The remarkable spanning capabilities of the Pushpak Structural Deck sheets translate to heightened strength and minimized deflection. This attribute is particularly advantageous for the construction of composite floor slabs, enhancing overall structural integrity.
- 4. For projects where fire safety is paramount, the deck sheets can be equipped with fire-resistant properties. This augmentation extends the applicability of these sheets to scenarios where stringent fire safety measures are essential, bolstering their suitability across a range of construction applications.



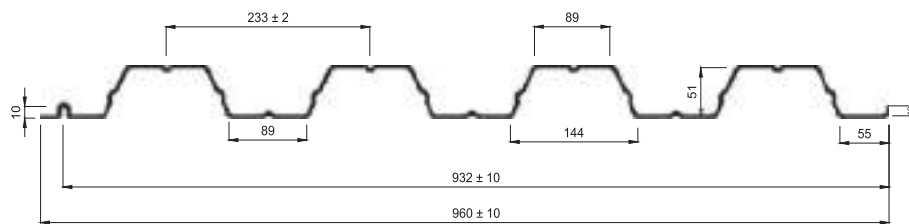
Advantages : Pushpak Structural Deck

- 1. Enhanced Aesthetic Possibilities: Deck sheets offer the advantage of versatile design, options, allowing architects and builders to incorporate aesthetic elements into the structure.
- 2. These sheets can be adapted to various styles, textures, and colours, enhancing the overall visual appeal of the building or space
- 3. Environmental Benefits: Many deck sheet materials are recyclable and contribute to sustainable construction practices. By using these materials, builders can reduce their environmental footprint and promote eco-friendly building solutions.
- 4. Versatile Applications : Deck sheets find utility in a wide range of applications, from residential constructions to commercial and industrial projects. Their adaptability makes them suitable for various types of structures, such as bridges, mezzanines, and parking garages.
- 5. Cost-Efficiency: Beyond their easy installation and reduced labor costs, deck sheets can offer financial benefits by optimizing material usage and construction time. Their ability to serve multiple functions, such as acting as formwork during concrete pouring, further contributes to overall cost-effectiveness.
- 6. Incorporating these advantages, deck sheets emerge as a reliable solution that addresses structural integrity, safety, aesthetics, and environmental considerations, making them a favored choice in modern construction practices.

Deck Sheet - Pushpak PTR51

FEATURES :

- Offers maximum coverage which in turn reduces cost of construction
- Crest height of Pushpak PTR51 reduces the use of concrete in the plan , hence reducing the overall concrete consumption
- It has four crests which increases its load bearing capacity.
- It's interlocking system is such that it reduces the overlap between two sheets .
- It can be used for longer spans since it has four crests



Technical Specification				
Supply Width	Covered Width	Pitch	Crest Height	Crest Width
960 mm (± 10 mm)	932 mm (± 5 mm)	233 mm (± 2 mm)	51 mm (± 2 mm)	89 mm (± 2 mm)



Deck Sheet - Pushpak PTR51

DETAILS OF PROPERTIES AND LOAD CAPACITIES FOR PERMISSIBLE DEFLECTION AND STRESS

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 2450 kg/cm2												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ³	cm ³													
1	0.80	47.45	18.61	18.61	2233	1845	1550	1321	1139	992	872	772	558	357	248	182	139
2	0.90	53.14	20.84	20.84	2500	2066	1736	1479	1275	1111	976	865	625	400	277	204	156
3	1.00	58.77	23.05	23.05	2766	2285	1920	1636	1411	1229	1080	957	691	442	307	225	172
4	1.10	64.35	25.24	25.24	3028	2503	2103	1792	1545	1346	1183	1048	757	484	336	247	189
5	1.20	69.87	27.40	27.40	3288	2717	2283	1945	1677	1461	1284	1137	822	526	365	268	205
6	1.25	72.62	28.48	28.48	3417	2824	2373	2022	1743	1518	1335	1182	854	546	379	278	213

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 2450 kg/cm2												
Sr. No.	Thiickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt ^{cm³}	Bottom Zt ^{cm³}	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
1	0.80	47.45	18.61	18.61	2791	2307	1938	1651	1424	1240	1090	965	697	446	310	227	174
2	0.90	53.14	20.84	20.84	3126	2583	2170	1849	1594	1389	1221	1081	781	500	347	255	195
3	1.00	58.77	23.05	23.05	3457	2857	2401	2045	1764	1536	1350	1196	864	553	384	282	216
4	1.10	64.35	25.24	25.24	3786	3128	2629	2240	1931	1682	1478	1310	946	605	420	309	236
5	1.20	69.87	27.40	27.40	4110	3396	2854	2431	2096	1826	1605	1422	1027	657	456	335	256
6	1.25	72.62	28.48	28.48	4272	3530	2966	2527	2179	1898	1668	1478	1068	683	474	348	267

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 3450 kg/cm2												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ³	cm ³													
1	0.80	47.45	18.61	18.61	3126	2583	2171	1849	1595	1389	1221	1081	781	500	347	255	195
2	0.90	53.14	20.84	20.84	3501	2893	2431	2071	1786	1556	1367	1211	875	560	389	285	218
3	1.00	58.77	23.05	23.05	3872	3200	2689	2291	1975	1721	1512	1339	968	619	430	316	242
4	1.10	64.35	25.24	25.24	4240	3504	2944	2509	2163	1884	1656	1467	1060	678	471	346	265
5	1.20	69.87	27.40	27.40	4603	3804	3196	2723	2348	2045	1798	1592	1150	736	511	375	287
6	1.25	72.62	28.48	28.48	4784	3954	3322	2831	2441	2126	1869	1655	1196	765	531	390	299

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 3450 kg/cm2												
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
			cm ³	cm ³													
1	0.80	47.45	18.61	18.61	3908	3229	2713	2312	1993	1736	1526	1352	977	625	434	319	244
2	0.90	53.14	20.84	20.84	4376	3616	3039	2589	2232	1945	1709	1514	1094	700	486	357	273
3	1.00	58.77	23.05	23.05	4840	4000	3361	2864	2469	2151	1890	1674	1210	774	537	395	302
4	1.10	64.35	25.24	25.24	5300	4380	3680	3136	2704	2355	2070	1834	1325	848	588	432	331
5	1.20	69.87	27.40	27.40	5754	4755	3995	3404	2935	2557	2247	1991	1438	920	639	469	359
6	1.25	72.62	28.48	28.48	5980	4942	4153	3538	3051	2658	2336	2069	1495	956	664	488	373



Simply Supported



Deck Span

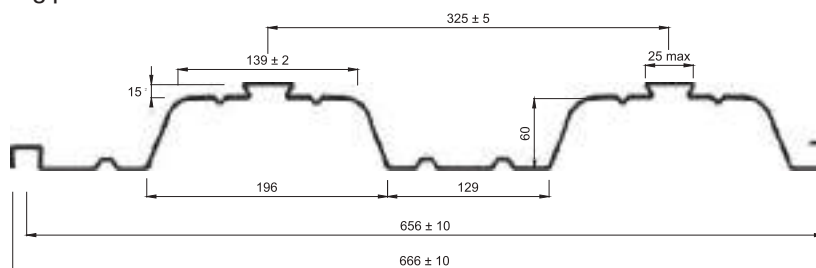
Deck Sheet - Pushpak PTR60

FEATURES :

- Un-propped spans over 3.5m
- Reduced concrete volume
- Engineered embossment design for optimum composite action between decking and concrete
- Fire rating up to 4.0hrs
- It's unique design allows for installation of false ceiling in High rise building without puncturing the Deck Sheet

ADVANTAGES :

- **Enhanced Structural Efficiency:** The 60mm deep trapezoidal profile represents a design that optimizes both material utilization and structural performance. The steel cross-sectional area of this profile not only contributes to its cost-effectiveness but also demonstrates an efficient use of resources by strategically distributing the load-bearing capacity of the slab. This profile minimizes excess material while maintaining structural integrity, resulting in a resilient and economically viable solution.
- **Advanced Fixing Technology:** The availability of the 'Wedge Nut' Fixing with a substantial load capacity of up to 1kN offers a technologically advanced and secure method for attaching elements to the floor decking. This type of fixing can enhance construction efficiency and reliability, providing a strong and stable platform for subsequent building stages or installations. The compatibility of such innovative fixing systems with the trapezoidal profile underscores its adaptability to modern construction requirements.
- **Long-Term Durability and Load Resistance:** The synergy between the concrete slab and the reinforcement of the metal decking leads to the creation of a structurally robust composite slab. This composite action results in a slab that can withstand heavy loads, dynamic forces, and the rigors of long-term usage. The enhanced load-bearing capability is of particular advantage in multi-storey buildings where vertical loads accumulate. Moreover, this load efficiency allows for the reduction of foundation sizes due to the lower overall weight, contributing to a more economical foundation design.
- **Sustainable Construction:** The design of the 60mm deep trapezoidal profile aligns with sustainable construction principles by minimizing material waste and optimizing load distribution. Its lighter weight compared to alternative construction methods not only eases the strain on foundations but also potentially reduces transportation and construction-related energy consumption. This combination of efficiency and sustainability highlights the profile's contribution to environmentally conscious building practices.



Technical Specification

Supply Width	Covered Width	Pitch	Crest Height	Crest Width
666 mm (± 10 mm)	656 mm (± 10 mm)	325 mm (± 5 mm)	60 mm (± 2 mm)	139 mm (± 2 mm)

Deck Sheet - Pushpak PTR60

DETAILS OF PROPERTIES AND LOAD CAPACITIES FOR PERMISSIBLE DEFLECTION AND STRESS

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 2450 kg/cm ²											
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span											
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³												
1	0.80	68.29	23.35	22.21	2665.20	2202.64	1850.83	1577.04	1359.8	1184.53	1041.09	822.59	666.30	550.65	296.13	165.58
2	0.90	76.53	26.16	24.89	2986.80	2468.43	2074.17	1767.34	1523.88	1327.47	1166.72	921.85	746.70	617.11	331.87	186.68
3	1.00	84.71	28.96	27.55	3306.00	2732.23	2295.83	1956.21	1685.73	1469.33	1291.41	1020.37	826.50	683.06	367.33	205.63
4	1.10	92.83	31.74	30.19	3622.80	2994.05	2515.83	2143.67	1848.37	1610.13	1415.16	1118.15	905.70	748.51	402.53	226.43
5	1.20	100.89	34.49	32.81	3937.20	3253.88	2734.17	2329.7	2008.78	1749.87	1537.97	1215.19	984.30	813.47	437.47	246.08

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 2450 kg/cm ²											
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span											
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³												
1	0.80	68.29	23.35	22.21	3331.50	2753.31	2313.54	1971.30	1699.74	1480.67	1301.37	1028.24	832.88	688.33	370.17	208.22
2	0.90	76.53	26.16	24.89	3733.50	3085.54	2592.71	2209.17	1904.85	1659.33	1458.40	1152.31	933.38	771.38	414.83	233.34
3	1.00	84.71	28.96	27.55	4132.50	3415.29	2869.79	2445.27	2108.42	1836.67	1614.26	1275.46	1033.13	853.82	459.17	258.28
4	1.10	92.83	31.74	30.19	4528.50	3742.56	3144.79	2679.59	2310.46	2012.67	1768.95	1397.69	1132.13	935.64	503.17	283.03
5	1.20	100.89	34.49	32.81	4921.50	4067.36	3417.71	2912.13	2510.97	2187.33	1922.46	1518.98	1230.38	1016.84	546.83	307.59

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 3450 kg/cm ²											
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span											
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³												
1	0.80	68.29	23.35	22.21	3677.98	3039.65	2554.15	2176.32	1876.52	1634.66	1436.71	1135.18	919.49	759.91	408.66	229.87
2	0.90	76.53	26.16	24.89	4121.78	3406.43	2862.35	2438.93	2102.95	1831.90	1610.07	1272.16	1030.45	851.61	457.98	257.61
3	1.00	84.71	28.96	27.55	4562.28	3770.48	3168.25	2699.57	2327.69	2027.68	1782.14	1408.11	1140.57	942.62	506.92	285.14
4	1.10	92.83	31.74	30.19	4999.46	4131.79	3471.85	2958.29	2550.75	2221.98	1952.92	1543.04	1249.87	1032.95	555.50	312.47
5	1.20	100.89	34.49	32.81	5433.34	4490.36	3773.15	3214.99	2772.11	2414.82	2122.40	1676.96	1358.33	1122.59	603.70	339.58

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 3450 kg/cm ²											
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span											
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³												
1	0.80	68.29	23.35	22.21	4597.47	3799.56	3192.69	2720.40	2345.65	2043.32	1795.89	1418.97	1149.37	949.89	510.83	287.34
2	0.90	76.53	26.16	24.89	5152.23	4258.04	3577.94	3048.66	2628.69	2289.88	2012.59	1590.19	1288.06	1064.51	572.47	322.01
3	1.00	84.71	28.96	27.55	5702.85	4713.10	3960.31	3374.47	2909.62	2534.60	2227.68	1760.14	1425.71	1178.27	633.65	356.43
4	1.10	92.83	31.74	30.19	6249.33	5164.74	4339.81	3697.83	3188.43	2777.48	2441.14	1928.81	1562.33	1291.18	694.37	390.58
5	1.20	100.89	34.49	32.81	6791.67	5612.95	4716.44	4018.74	3465.14	3018.52	2653.00	2096.19	1697.92	1403.24	754.63	424.48



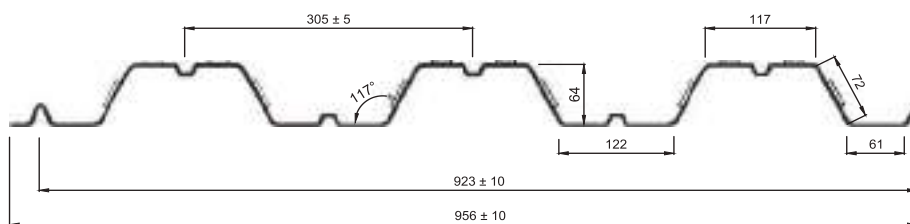
Deck Sheet - Pushpak PTR64

FEATURES :

- Greater loading capacity due to 64mm crest height
- Uncluttered appearance Weatherproof
- High thickness of up to 1.8mm possible
- PTR64 Can be used in applications where higher load bearing capacity is required

ADVANTAGES :

- **Efficient Services Integration:** The integration of services such as electrical, plumbing, and HVAC systems is streamlined with the use of deck sheets.
- The strategic placement of service conduits and utilities within the voids of the decking can be done during the installation process, eliminating the need for additional cutting or drilling after the construction of the slab.
- This seamless incorporation of services not only expedites the construction timeline but also minimizes disruptions and modifications typically associated with retrofitting services into traditional concrete slabs.
- As a result, deck sheets enhance the overall efficiency of service integration and contribute to a more organized and optimized construction process.



Technical Specification

Supply Width	Covered Width	Pitch	Crest Height	Crest Width
956 mm (± 10 mm)	923 mm (± 10 mm)	305 mm (± 5 mm)	64 mm (± 2 mm)	117 mm (± 2 mm)

Deck Sheet - Pushpak PTR64

DETAILS OF PROPERTIES AND LOAD CAPACITIES FOR PERMISSIBLE DEFLECTION AND STRESS

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 2450 kg/cm ²												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³													
1	0.80	74.78	23.07	23.68	2768.40	2287.93	1922.50	1638.11	1412.45	1230.40	1081.41	957.92	692.10	442.94	307.60	225.99	173.03
2	0.90	83.82	25.85	26.54	3102.00	2563.64	2154.17	1835.50	1582.65	1378.67	1211.72	1073.36	775.50	496.32	344.67	253.22	193.88
3	1.00	92.79	28.63	29.37	3435.60	2839.34	2385.83	2032.90	1752.86	1526.93	1342.03	1188.79	858.90	549.70	381.73	280.46	214.73
4	1.10	101.69	31.38	32.19	3765.60	3112.07	2615.00	2228.17	1921.22	1673.60	1470.94	1302.98	941.40	602.50	418.40	307.40	235.35
5	1.20	110.52	34.10	34.99	4092.00	3381.82	2841.67	2421.30	2087.76	1818.67	1598.44	1415.92	1023.00	654.72	454.67	334.04	255.75
6	1.25	114.91	35.46	36.38	4255.20	3516.69	2955.00	2517.87	2171.02	1891.20	1662.19	1472.39	1063.80	680.83	472.80	347.36	265.95
7	1.40	127.99	39.49	40.52	4738.80	3916.36	3290.83	2804.02	2417.76	2106.13	1851.09	1639.72	1184.70	758.21	526.53	386.84	296.18
8	1.50	136.63	42.16	43.25	5059.20	4181.16	3513.33	2993.61	2581.22	2248.53	1976.25	1750.59	1264.80	809.47	562.13	413.00	316.20
9	1.60	145.31	44.8	45.97	5376.00	4442.98	3733.33	3181.07	2742.86	2389.33	2100.00	1860.21	1344.00	860.16	597.33	438.86	336.00
10	1.80	162.17	50.04	51.34	6004.80	4962.64	4170.00	3553.14	3063.67	2668.80	2345.63	2077.79	1501.20	960.77	667.20	490.19	375.30

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 2450 kg/cm ²												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³													
1	0.80	74.78	23.07	23.68	3460.50	2859.92	2403.13	2447.63	1765.56	1538.00	1351.76	1197.40	865.13	553.68	384.50	282.49	216.28
2	0.90	83.82	25.85	26.54	3877.50	3204.55	2692.71	2294.38	1978.32	1723.33	1514.65	1341.70	969.38	620.40	430.83	316.53	242.34
3	1.00	92.79	28.63	29.37	4294.50	3549.17	2982.29	2541.12	2191.07	1908.67	1677.54	1485.99	1073.63	687.12	477.17	350.57	268.41
4	1.10	101.69	31.38	32.19	4707.00	3890.08	3268.75	2785.21	2401.53	2092.00	1838.67	1628.72	1176.75	753.12	523.00	384.24	294.19
5	1.20	110.52	34.10	34.99	5115.00	4227.27	3552.08	3026.63	2609.69	2273.33	1998.05	1769.90	1278.75	818.40	568.33	417.55	319.69
6	1.25	114.91	35.46	36.38	5319.00	4395.87	3693.75	3147.34	2713.78	2364.00	2077.73	1840.48	1329.75	851.04	591.00	434.20	332.44
7	1.40	127.99	39.49	40.52	5923.50	4895.45	4113.54	3505.03	3022.19	2632.67	2313.87	2049.65	1480.88	947.76	658.17	483.55	370.22
8	1.50	136.63	42.16	43.25	6324.00	5226.45	4391.67	3742.01	3226.53	2810.67	2470.31	2188.24	1581.00	1011.84	702.67	516.24	395.25
9	1.60	145.31	44.8	45.97	6720.00	5553.72	4666.67	3976.33	3428.57	2986.67	2625.00	2325.26	1680.00	1075.20	746.67	548.57	420.00
10	1.80	162.17	50.04	51.34	7506.00	6203.31	5212.50	4441.42	3829.59	3336.00	2932.03	2597.23	1876.50	1200.96	834.00	612.73	469.13

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 3450 kg/cm ²												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³													
1	0.80	74.78	23.07	23.68	3875.76	3203.11	2691.50	2293.35	1977.43	1722.56	1513.97	1341.09	968.94	620.12	430.64	316.39	242.24
2	0.90	83.82	25.85	26.54	4342.80	3589.09	3015.83	2569.70	2215.71	1930.13	1696.41	1502.70	1085.70	694.85	482.53	354.51	271.43
3	1.00	92.79	28.63	29.37	4809.84	3975.07	3340.17	2846.06	2454.00	2137.71	1878.84	1664.30	1202.46	769.57	534.43	392.64	300.62
4	1.10	101.69	31.38	32.19	5271.84	4356.89	3661.00	3119.43	2689.71	2343.04	2059.31	1824.17	1317.96	843.49	585.76	430.35	329.49
5	1.20	110.52	34.10	34.99	5758.80	4734.55	3978.33	3389.82	2922.86	2546.13	2237.81	1982.28	1432.20	916.61	636.53	467.66	358.05
6	1.25	114.91	35.46	36.38	5927.28	4923.37	4137.00	3525.02	3039.43	2647.68	2327.06	2061.34	1489.32	953.16	661.92	486.31	372.33
7	1.40	127.99	39.49	40.52	6634.32	5482.91	4607.17	3925.63	3384.86	2948.59	2591.53	2295.61	1658.58	1061.49	737.15	541.58	414.65
8	1.50	136.63	42.16	43.25	7082.88	5853.62	4918.67	4191.05	3613.71	3147.95	2766.75	2450.82	1770.72	1133.26	786.99	578.19	442.68
9	1.60	145.31	44.8	45.97	7526.40	6220.17	5226.67	4453.49	3840.00	3345.07	2940.00	2604.29	1881.60	1204.22	836.27	614.40	470.40
10	1.80	162.17	50.04	51.34	8406.72	6947.70	5838.00	4974.39	4289.14	3736.32	3283.88	2908.90	2101.68	1345.08	934.08	686.26	525.42

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 3450 kg/cm ²												
Sr. No.	Thickness in mm	Moment of Inertia / m	Section Modulus		Permissible load in Kg/sqm for span												
			Top Zt	Bottom Zt	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.
		cm ⁴	cm ²	cm ³													
1	0.80	74.78	23.07	23.68	4844.70	4003.88	3364.38	2866.69	2471.79	2153.20	1891.46	1676.37	1211.18	775.15	538.30	395.49	302.79
2	0.90	83.82	25.85	26.54	5428.50	4486.36	3769.79	3212.13	2769.64	2412.67	2120.51	1878.37	1357.13	868.56	603.17	443.14	339.28
3	1.00	92.79	28.63	29.37	6012.30	4968.84	4175.21	3557.57	3067.50	2672.13	2348.55	2080.38	1503.08	961.97	668.03	490.80	375.77
4	1.10	101.69	31.38	32.19	6589.80	5446.12	4576.25	3899.29	3362.14	2928.80	2574.14	2280.21	1647.45	1054.37	732.20	537.94	411.86
5	1.20	110.52	34.10	34.99	7161.00	5918.18	4972.92	4237.28	3653.57	3182.67	2797.27	2477.85	1790.25	1145.76	795.67	584.57	447.56
6	1.25	114.91	35.46	36.38	7446.60	6154.21	5171.25	4406.27	3799.29	3309.60	2908.83	2576.68	1861.65	1191.46	827.40	607.89	465.41
7	1.40	127.99	39.49	40.52	8292.90	6853.64	5758.96	4907.04	4231.07	3685.73	3239.41	2869.52	2073.23	1326.86	921.43	676.97	518.31
8	1.50	136.63	42.16	43.25	8853.60	7317.02	6148.33	5238.82	4517.14	3934.93	3458.44	3063.53	2213.40	1416.58	983.73	722.74	553.35
9	1.60	145.31	44.8	45.97	9408.00	7775.21	6533.33	5566.86	4800.00	4181.33	3675.00	3255.36	2352.00	1505.28	1045.33	768.00	588.00
10	1.80	162.17	50.04	51.34	10508.40	8684.63	7297.50	6217.99	5361.43	4670.40	4104.84	3636.12	2627.10	1681.34	1167.60	857.83	656.78

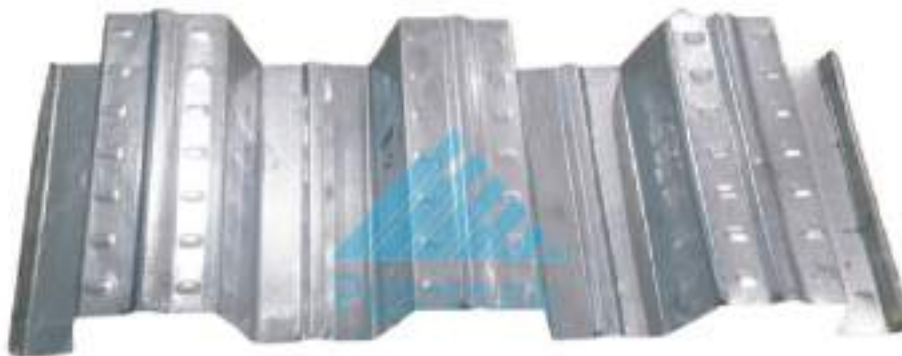
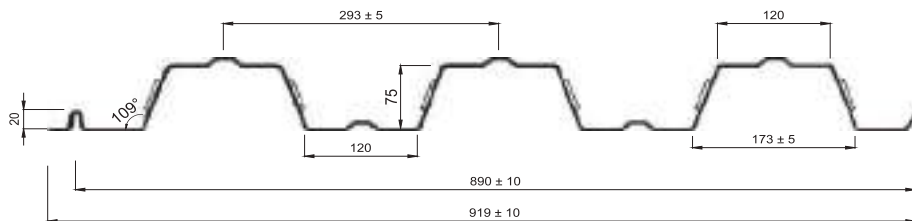
Deck Sheet - Pushpak PTR75

FEATURES :

- 75 crest height ensures higher load bearing capacity
- Thickness of up to 1.20 mm can be supplied
- Unsupported longer span slab can be constructed
- Lightweight. Doesn't require any support, which considerably reduces the use of concrete & slab thickness.
- Acts as a composite member and as permanent shuttering
- No major reinforcement is required
- Deck can be used as a working platform during construction
- Speedy construction enables faster completion of a project

ADVANTAGES :

- Decking reduces the construction time, hence the total cost
- The design of decking sheets allows for thinner concrete slabs while maintaining structural integrity, resulting in cost savings and reduced overall weight of the structure.
- Decking sheets have a specific profile or shape that provides structural strength and helps to interlock with concrete. The profile design may vary depending on the manufacturer and the intended application.



Technical Specification				
Supply Width	Covered Width	Pitch	Crest Height	Crest Width
919 mm (± 10 mm)	890 mm (± 10 mm)	293 mm (± 5 mm)	75 mm (± 2 mm)	120 mm (± 2 mm)

Deck Sheet - Pushpak PTR75

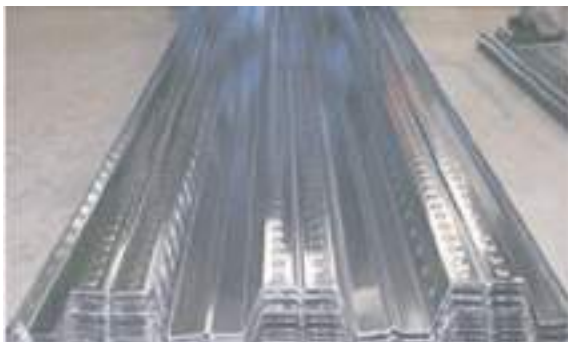
DETAILS OF PROPERTIES AND LOAD CAPACITIES FOR PERMISSIBLE DEFLECTION AND STRESS

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 2450 kg/cm ²													
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span													
			Top Zt	Bottom Zt														
		cm ⁴	cm ²	cm ³	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.	
1	0.80	109.55	29.21	29.21	3505.20	2896.86	2434.17	2074.08	1788.37	1557.87	1369.22	1212.87	876.30	560.83	389.47	286.14	219.08	
2	0.90	122.83	32.75	32.75	3930.00	3247.93	2729.17	2325.44	2005.10	1746.67	1535.16	1359.86	982.50	628.80	436.67	320.82	245.63	
3	1.00	136.03	36.27	36.27	4352.40	3597.02	3022.50	2575.38	2220.61	1934.40	1700.16	1506.02	1088.10	696.38	483.60	355.30	272.03	
4	1.10	149.14	39.77	39.77	4772.40	3944.13	3314.17	2823.91	2434.90	2121.07	1864.22	1651.35	1193.10	763.58	530.27	389.58	298.28	
5	1.20	162.17	43.25	43.25	5190.00	4289.26	3604.17	3071.02	2647.96	2306.67	2027.34	1795.85	1297.50	830.40	576.67	423.67	324.38	

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 2450 kg/cm ²													
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span													
			Top Zt	Bottom Zt														
		cm ⁴	cm ²	cm ³	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.	
1	0.80	109.55	29.21	29.21	4381.50	3621.07	3042.71	2592.60	2235.46	1947.33	1711.52	1516.09	1095.38	701.04	486.83	357.67	273.84	
2	0.90	122.83	32.75	32.75	4912.50	4059.92	3411.46	2906.80	2506.38	2183.33	1918.95	1699.83	1228.13	786.00	545.83	401.02	307.03	
3	1.00	136.03	36.27	36.27	5440.50	4496.28	3778.13	3219.23	2775.77	2418.00	2125.20	1882.53	1360.13	870.48	604.50	444.12	340.03	
4	1.10	149.14	39.77	39.77	5965.50	4930.17	4142.71	3529.88	3043.62	2651.33	2330.27	2064.19	1491.38	954.48	662.83	486.98	372.84	
5	1.20	162.17	43.25	43.25	6487.50	5361.57	4505.21	3838.76	3309.95	2883.33	2534.18	2244.81	1621.88	1038.00	720.83	529.59	405.47	

PLACEMENT : SIMPLY SUPPORTED					YIELD STRESS OF MATERIAL = 3450 kg/cm ²													
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span													
			Top Zt	Bottom Zt														
		cm ⁴	cm ²	cm ³	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.	
1	0.80	109.55	29.21	29.21	4837.18	3997.67	3359.15	2862.23	2467.95	2149.86	1889.52	1673.76	1209.29	773.95	537.46	394.87	302.32	
2	0.90	122.83	32.75	32.75	5423.40	4482.15	3766.25	3209.11	2767.04	2410.40	2118.52	1876.61	1355.85	867.74	602.60	442.73	338.96	
3	1.00	136.03	36.27	36.27	6006.31	4963.89	4171.05	3554.03	3064.44	2669.47	2346.22	2078.31	1501.58	961.01	667.37	490.31	375.39	
4	1.10	149.14	39.77	39.77	6585.91	5442.90	4573.55	3896.99	3360.16	2927.07	2572.62	2278.86	1646.48	1053.75	731.77	537.63	411.62	
5	1.20	162.17	43.25	43.25	7162.20	5919.17	4973.75	4237.99	3654.18	3183.20	2797.73	2478.27	1790.55	1145.95	795.80	584.67	447.64	

PLACEMENT : THREE SPANS CONTINUOUS					YIELD STRESS OF MATERIAL = 3450 kg/cm ²													
Sr. No.	Thickness in mm	Moment of Inertia / m ⁴	Section Modulus		Permissible load in Kg/sqm for span													
			Top Zt	Bottom Zt														
		cm ⁴	cm ²	cm ³	1.0 mtr.	1.1 mtr.	1.2 mtr.	1.3 mtr.	1.4 mtr.	1.5 mtr.	1.6 mtr.	1.7 mtr.	2.0 mtr.	2.5 mtr.	3.0 mtr.	3.5 mtr.	4.0 mtr.	
1	0.80	109.55	29.21	29.21	6046.47	4997.08	4198.94	3577.79	3084.93	2687.32	2361.90	2092.20	1511.62	967.44	671.83	493.59	377.90	
2	0.90	122.83	32.75	32.75	6779.25	5602.69	4707.81	4011.39	3458.80	3013.00	2648.14	2345.76	1694.81	1084.68	753.25	553.41	423.70	
3	1.00	136.03	36.27	36.27	7507.89	6204.87	5213.81	4442.54	3830.56	3336.84	2932.77	2597.89	1876.97	1201.26	834.21	612.89	469.24	
4	1.10	149.14	39.77	39.77	8232.39	6803.63	5716.94	4871.24	4200.20	3658.84	3215.78	2848.58	2058.10	1317.18	914.71	672.03	514.52	
5	1.20	162.17	43.25	43.25	8952.75	7398.97	6217.19	5297.49	4567.73	3979.00	3497.17	3097.84	2238.19	1432.44	994.75	730.84	559.55	

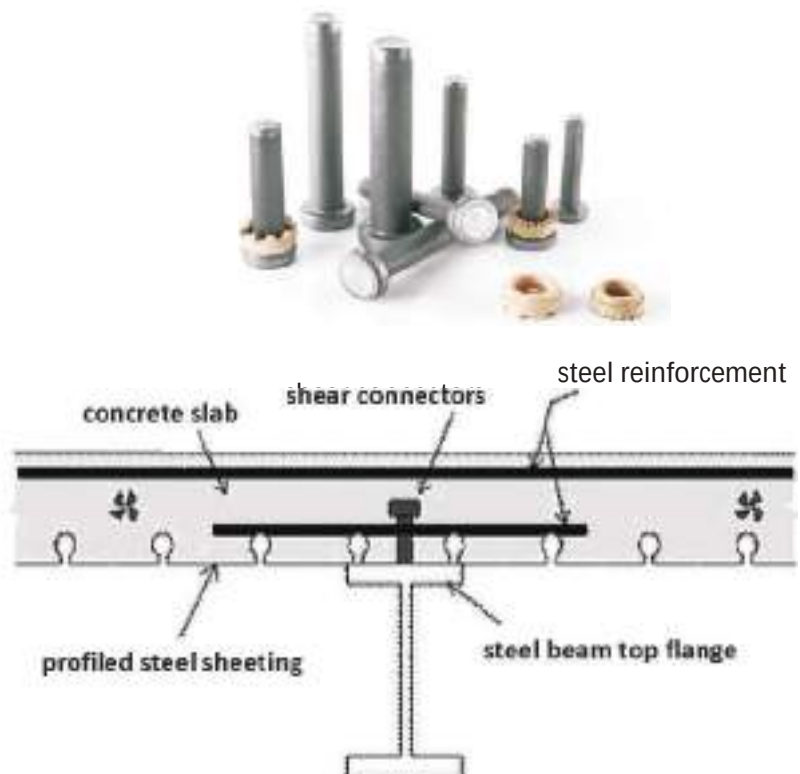


Shear Studs

- Shear stud welding is frequently used in the installation of metal decking sheets in construction projects, particularly for composite steel-concrete floors in buildings and bridges. Metal decking sheets are thin steel panels that are typically corrugated or ribbed and serve as the formwork for pouring concrete slabs. The shear studs are welded to these decking sheets to create a composite structure that combines the benefits of both steel and concrete materials.

Here's how shear stud welding is applied in the installation of metal decking sheets:

1. **Preparation:** The steel beams or girders that will support the composite floor are prepared by cleaning their surfaces to ensure proper weld quality. The metal decking sheets are then laid out over the steel beams to create the formwork for the concrete slab.
 2. **Shear Stud Placement:** Shear studs are placed in predetermined patterns and spacings on the surface of the metal decking sheets. These studs are often arranged in rows along the length of the sheet, with specific spacing and placement according to engineering and design specifications.
 3. **Welding Process:** The shear studs are welded to the metal decking sheets using specialized stud welding equipment. This involves creating an electric arc between the end of the stud and the metal decking surface. The heat generated by the arc melts both the stud and the decking sheet, forming a weld pool. The stud is then pressed into the molten pool, and as it cools and solidifies, it fuses with the metal decking.
 4. **Concrete Pouring:** Once the shear studs are welded to the metal decking sheets, concrete is poured over the sheets. The shear studs protruding from the decking become embedded within the concrete as it cures and hardens. This creates a composite structure where the steel decking, shear studs, and concrete work together to resist loads and distribute them effectively.
 5. **Composite Action:** The composite structure formed by the metal decking, shear studs, and concrete offers several benefits. It enhances the load-carrying capacity of the floor system, improves fire resistance, and provides better stiffness and vibration control.
 6. **Construction Efficiency:** Shear stud welding in metal decking installation is efficient and allows for rapid construction progress. The composite system eliminates the need for temporary supports during the concrete pour, as the studs provide the necessary connection between the steel beams and the concrete slab.
- In summary, shear stud welding is a crucial technique in creating composite structures with metal decking sheets and concrete. It optimizes structural performance and offers time-saving benefits during the construction of floors in buildings, bridges, and other structures.



Pushpak Pro C & Pro Z Purlin

• C and Z purlins are structural elements commonly used in the construction of buildings, especially in the roofing and wall framing systems. They are cold-formed steel sections shaped like the letters "C" and "Z," hence their names. These purlins provide support for the roof or wall cladding and help transfer the loads from the roof to the primary structural framework of the building. Let's take a closer look at C and Z purlins:

Pro C Purlins

• Pro C purlins have a shape resembling the letter "C" when viewed in cross-section. They are typically used in roofing systems and are installed horizontally along the length of the roof, parallel to the primary structural beams or rafters. The flat section of the C purlin provides a stable surface for attaching the roof cladding or sheeting, while the lips on the edges help provide rigidity and support.

Pro Z Purlins

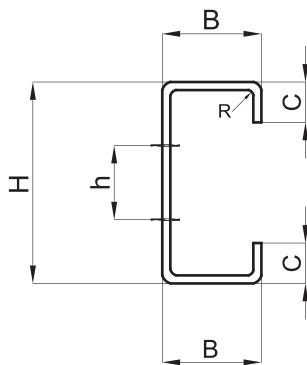
• Pro Z purlins have a shape resembling the letter "Z" when viewed in cross-section. They are often used in wall framing systems and can also be used in roofing applications when additional strength is required. Z purlins are installed vertically between the roof or wall cladding, perpendicular to the primary structural framework of the building. The design of the Z purlin allows it to provide more bending strength and support compared to C purlins, making them suitable for larger spans and heavier loads.

Advantages of Pro C and Pro Z Purlins :

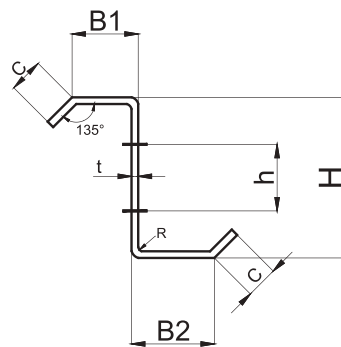
- **Lightweight:** Being made from cold-formed steel, C and Z purlins are lightweight, which makes them easier to handle and install.
- **Cost-Effective :** They are cost-effective compared to traditional hot-rolled steel sections, reducing the overall construction expenses.
- **High Strength-to-Weight Ratio:** C and Z purlins offer a high strength-to-weight ratio, making them efficient in supporting roof and wall loads without adding excessive weight to the structure.
- **Versatility:** C and Z purlins can be easily customized to various lengths and sizes, allowing for flexibility in design and construction.

Installation : Pro C and Pro Z purlins are usually pre-punched with holes for easier installation. They are fixed to the primary structural framework using bolts, screws, or other fasteners. The spacing and size of the purlins depend on the design requirements and the loads they need to support.

• PushpakPRO-C Purlins



• PushpakPRO-Z Purlins



Section Web Size (H)		Flange Size (B)		Lip Size (C)		Vertical Slot Distance (h)		Thicknes (t)
Min	Max	Min	Max	Min	Max	Min	Max	
80	300	45	80	15	25	30	280	1.4 - 3.0

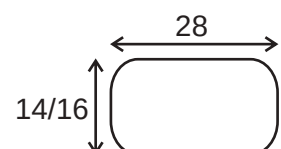
Technical and Material Specifications

Thickness : 1.4mm to 3.0mm
 Material : Galvanised Steel
 Length : Upto 13 metre
 Yield Strength : 245 MPa to 345 MPa

Bene? ts of C & Z Purlins

- High strength to weight ratio
- Economical
- Can be used for large spans
- Better quality & ?nish
- Quick Installation

Capsule Hole



Sag Rods

- Sag rods are typically used in the construction of metal roofs, specifically in the context of steel purlins. Purlins are horizontal structural members that support the roof covering, such as metal sheets or tiles. Sag rods are used to provide additional support to the purlins, preventing them from sagging under the weight of the roof materials, snow loads, and other environmental factors.
- Sag rods are tension members that are installed beneath the purlins and are connected to the purlins at various intervals. These rods help maintain the proper alignment and spacing of the purlins, ensuring that the roof structure remains stable and that the roof covering is well-supported. Sag rods can help prevent excessive deflection and ensure the roof can bear the additional weight without deforming or collapsing.
- The use of sag rods can vary depending on the specific design and engineering requirements of a building. They are just one of the many components used in the construction of a sturdy and safe metal roof system.

Brace Rod

- In steel buildings, a brace rod is a structural component used to provide lateral stability and resist forces such as wind loads, seismic forces, and other lateral loads. These rods are an essential part of the building's bracing system, which helps maintain the structural integrity and prevent sway or deformation during various environmental and operational conditions.
- Brace rods typically consist of steel rods or cables and are strategically placed within the building's framework to form a bracing system. The main functions of brace rods in steel buildings are as follows:-
- Lateral Load Resistance: Brace rods help the building resist lateral forces that can push or pull the structure horizontally. This is especially important in regions prone to high winds, earthquakes, or other lateral forces.
- Building Stability: They enhance the overall stability of the building, preventing it from swaying excessively during strong winds or seismic events.
- Structural Integrity: By reducing lateral movement, brace rods help maintain the structural integrity of the building and protect against damage or failure.
- Load Redistribution: Brace rods can also assist in redistributing loads to other parts of the structure, thereby preventing overloading in specific areas.
- The design, placement, and size of brace rods depend on various factors, including the building's location, purpose, and the anticipated forces it will encounter. These rods are typically arranged diagonally within the building frame and are often part of a larger system of bracing elements, which can include diagonal bracing members, cross-bracing, or shear walls.
- The use of brace rods and other bracing elements is an essential part of ensuring the safety and stability of steel buildings, making them a common feature in modern construction.



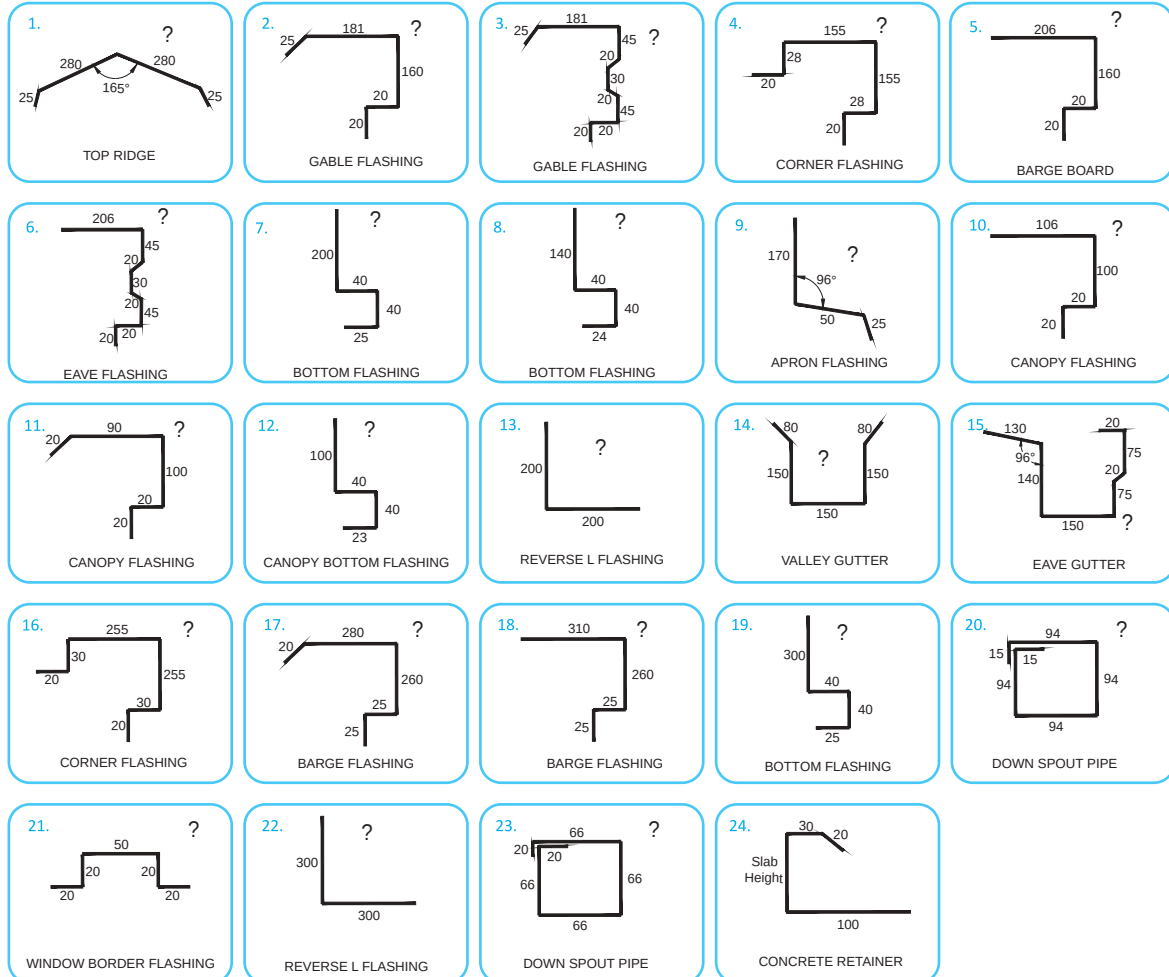
Sag Rods



Brace Rod

Pushpak PRO Flashings

- Metal roofing accessories are components specifically designed to complement and enhance metal roofing systems. They play a vital role in improving the roof's performance, aesthetics, and overall durability. Here are some common metal roofing accessories.
- Ridge Caps : Ridge caps are installed along the peak of the roof to provide a weatherproof seal and protect the roof's highest point. They are available in various profiles to match different metal roofing styles.
- Eave Trim (Drip Edge)/Bottom Flashing : Eave trim, also known as drip edge, is installed at the roof's edge to direct water away from the fascia and prevent it from seeping under the roofing material. It also gives the roof a neat, finished appearance.
- Gable Trim : Gable trim is used to finish and protect the edges of the metal roofing panels along the gable ends of the roof.
- Valley Flashing / Gutter : Valley flashing is used in roof valleys, where two roof planes meet, to direct water away from the joint and prevent leaks in these critical areas.
- Z-Flashing : Z-flashing is used around roof penetrations, such as chimneys, skylights, and vents, to provide a waterproof barrier and prevent water from entering vulnerable areas.
- Ventilation Accessories : Proper ventilation is essential for metal roofing systems. Ridge vents, roof louvers, and soffit vents are metal roofing accessories used to ensure proper airflow in the attic space, reducing heat buildup and preventing moisture-related issues.
- Gutters and Downspouts : While not directly part of the metal roofing system, gutters, and downspouts are essential accessories used to manage rainwater runoff effectively and protect the building's foundation.
- Metal roofing accessories are engineered to work seamlessly with metal roofing panels, providing additional weatherproofing, protection against leaks, and aesthetic enhancement. When properly selected and installed, these accessories can significantly contribute to the longevity and performance of a metal roofing system.



★ indicates top coat surface

Pushpak PRO - Rolling Downspout Pipes

- A rolling downspout pipe, also known as a retractable downspout or flexible downspout extension, is a type of gutter accessory used to extend and direct the flow of water away from a building's foundation. It is designed to connect to a traditional downspout and can be adjusted to various lengths as needed.
- "Downspout" or "Downpipe," which is a part of a building's gutter system used to channel rainwater from the roof to the ground.
- A profile for a downspout might include its material such as aluminum, PVC, or stainless steel different sizes available and possibly special features like being corrosion-resistant, easy to install, or customizable for specific architectural needs.



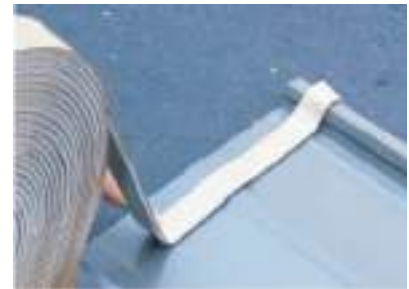
Foam Closure - Pushpak PRO Proof



- Foam closure strips, also known as foam closure tapes or foam closures are a type of sealing material used in construction, particularly in roofing applications. They are designed to seal the gaps between roofing panels, providing weatherproofing and preventing the ingress of moisture, dust, and pests into the building's interior. These closure strips are often made from foam materials, such as polyethylene which offer flexibility and excellent sealing properties.

Butyl Tape - Pushpak PRO Proof

- Butyl tape is a type of versatile adhesive sealing tape known for its excellent sealing and bonding properties. It is composed of a synthetic rubber called butyl, which is a copolymer of isobutylene and isoprene. The tape is usually black or gray and has a sticky, tacky surface on both sides.
- One of the significant advantages of butyl tape is its ease of application. It can be cut to the desired length and easily adhered to the surfaces, providing an effective seal without the need for complex tools or equipment. Its essential to follow the manufacturer's recommendations and guidelines when using butyl tape for specific applications to ensure optimal performance and longevity. Different formulations and thicknesses of butyl tape are available to suit various sealing and bonding requirements.



Self-Tapping Screws



- A self-tapping screw is a type of fastener that can create its own thread as it is driven into a material, such as metal or plastic, without the need for a pre-drilled hole or a nut. These screws have a unique thread design with a sharp point, allowing them to cut into the material as they are screwed in. Self-tapping screws are commonly used in a wide range of applications.
- It's important to choose the right type and size of self-tapping screw for a specific application to ensure proper installation and optimal performance. The screw's diameter, length, and thread type should match the material and thickness to achieve a secure and reliable fastening.

PVC Pipe / Elbow

- PVC (Polyvinyl Chloride) pipe and elbow are essential components used in plumbing, construction, and various industrial applications. They are made from a type of plastic known as PVC, which offers several advantages for various piping needs.
- PVC pipes and elbows have become popular choices in various industries due to their versatility, ease of installation, and resistance to corrosion. When used in combination, they form a reliable and efficient piping system for transporting fluids and protecting electrical wires. Proper installation and adherence to industry standards are essential to ensure the safety and effectiveness of PVC pipe and elbow applications.



Pushpak - Ventilation System

- Industrial ventilation refers to the process of controlling and regulating the air quality in industrial facilities, such as factories, manufacturing plants, and warehouses. The primary purpose of industrial ventilation is to ensure a safe and healthy work environment for employees while also protecting the equipment and processes from potential hazards.

Key benefits of proper industrial ventilation include :

- **Health and Safety** : It protects workers from exposure to harmful substances, reducing the risk of occupational illnesses and respiratory issues.
- **Compliance** : Many industries must adhere to specific regulations and standards concerning air quality, and proper ventilation helps companies meet these requirements.
- **Equipment Protection** : Controlling temperature and humidity levels can prevent damage to sensitive machinery and equipment.
- **Product Quality** : In certain industries like food production or electronics manufacturing, ventilation can help maintain product quality by minimizing contamination risks.
- **Fire and Explosion Prevention** : Proper ventilation can reduce the buildup of flammable gases and dust, decreasing the risk of fires or explosions.



Pushpak PROAir - Metal Louvers

- A metal louver is a slatted structure often made of aluminum or steel that's installed in buildings for ventilation, airflow control, and sun shading. Louvers allow air to pass through while blocking direct sunlight and rain, providing both functional and aesthetic benefits.

Pushpak PRO PL - Polycarbonate Louvers

- A polycarbonate louver is a slatted structure made from durable polycarbonate material. It's used in construction for its lightweight nature, durability, and transparency. Polycarbonate louvers provide ventilation, daylighting, and visual appeal while protecting against weather elements and UV rays.



Pushpak PROAir⁺ - Metal + Polycarbonate Louvers

- A metal and polycarbonate louver combines the strength of metal with the transparency of polycarbonate. This hybrid structure offers a balance of durability and light transmission, making it suitable for architectural features that require both airflow control and natural light diffusion.

Pushpak PROVent -Ridge Ventilator

- A ridge vent is a ventilation system installed at the peak of a sloped roof. It allows hot air and moisture to escape from the attic, promoting better airflow, reducing heat buildup, and helping to maintain a healthier and more energy-efficient environment within the building.



- One of the most effective ways to provide natural ventilation to an industrial building is to eliminate the roof. This is because the hot air generated by the working conditions on the shop floor will naturally rise and dissipate into the atmosphere, resulting in a cooler and more comfortable indoor environment. However, this approach is not practical in most cases due to weather conditions, security concerns, and other factors.
- The next best solution is to install an industrial ventilation system. This system involves opening up the roof of the building to allow for proper air circulation and ventilation. An industrial ventilation system can come in various forms, such as exhaust fans, louvers, or vents, depending on the specific needs of the building. By installing an industrial ventilation system, you can ensure that the air in your industrial space is constantly circulating, which can help to regulate temperature, remove pollutants, and improve air quality.

- In summary, while eliminating the roof of an industrial building is the most efficient way to provide natural ventilation, it is not always practical. As an alternative, an industrial ventilation system can be installed to create a more comfortable and healthier indoor environment for workers and visitors.

- Conventional exhaust systems that use powered fans have been around for decades. However, they come with their fair share of challenges such as vibrations, reverberator noises, and worst of all, high power consumption. High energy consumption is a significant issue considering the scarcity of power in many parts of the world. Besides, regular maintenance is usually neglected as the units are installed in high places such as the roof, which makes it difficult to access them. This leads to a significant reduction in the efficiency and lifespan of the system.

- In addition, these systems stop working during a power outage - just when they are most needed. This is a significant drawback since some facilities require round-the-clock ventilation to maintain a healthy indoor environment. The consequences of contaminated air can be severe.



- Our exhaust system, on the other hand, relies only on nature's own, unfailing principles of gravity and convection. This means that it operates silently and without vibrations, making it ideal for places where noise is a concern. Furthermore, it consumes no power, making it an excellent option for energy-conscious individuals and organizations. Additionally, our system is easy to maintain since it does not have powered fans that require regular check-ups and cleaning.

- In summary, our exhaust system offers a reliable and efficient solution for ventilation needs. It is eco-friendly, cost-effective, and requires no maintenance, making it an ideal choice for both Industrial and commercial settings.

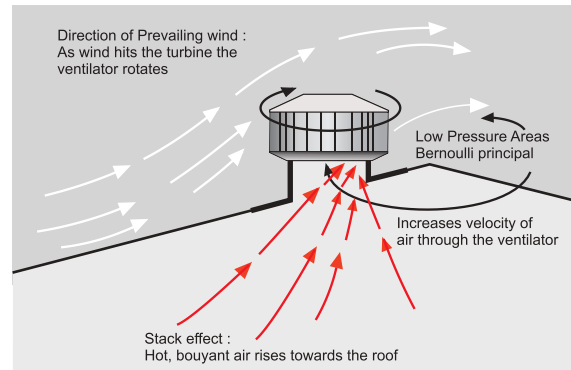
Pushpak PROTurbo- Turbo Ventilator

• A turbo ventilator is a roof-mounted device that uses wind power to exhaust hot air and improve air circulation within a building or enclosed space. It harnesses natural wind energy to create ventilation, enhancing indoor air quality and reducing heat buildup.



• Ventilators are an Inexpensive, reliable and Effective Ventilation Solution.

• Roof Ventilator is a natural air ventilation system. It is a free spinning roof exhaust which works by utilizing the Velocity of wind to induce air by Centrifugal Action. The Centrifugal Force by the spinning vanes creates a region of low pressure area which draws and throws out air from below and causes fresh cool air from the outside to come in.



Features and Applications :

- Round the year effective ventilation at no running cost Runs on Wind Power / Leakage proof.
- Entitled for depreciation at an accelerated rate under present tax laws.
- Mechanically strong and light weight construction available in superior grades of Stainless Steel and Aluminum.
- Economical & environment friendly. Standard sizes include 24" and 22".
- Maintenance free, Noise free, Highly durable Weather & Storm Proof

	Aluminium (Hindalco) Turbo Fan	PPSS Turbo Fan
Ventilator Vanes	Industrial Hi-Grade Aluminium	Stainless Steel
Ventilator Top Plate	Stainless Steel (0.50 mm)	Stainless steel (0.8 mm)
Ventilator Bottom of Ring	Stainless Steel (0.50 mm)	Poly Propylene (4mm)
Weight of Ventilator	5.5 Kg. $\pm$ 0.2 Kg.	4 kg. $\pm$ 0.2 Kg.
Height of Ventilator	410 mm $\pm$ 5 mm	Height 381 mm $\pm$ 5 mm
Center Width of Ventilator	735 mm $\pm$ 5 mm	711 mm $\pm$ 5 mm
Dia of Top Plate	500 mm $\pm$ 5 mm	400 mm
Dia of Bottom Ring	600 mm $\pm$ 15 mm	610 mm $\pm$ 15 mm
Nos of Vanes	42 Nos Die Pressed	28 nos. Die Pressed
Thickness of Vanes	0.50 mm $\pm$ 0.02 mm	0.30 mm $\pm$ 0.02 mm
Nos of Bearing	2 Nos.	2 nos.
Bearing Type	6001 ZZ Permanently Lubricated & Sealed	6001 ZZ Permanently Lubricated & Sealed
Rivets	Alumium Alloy with Washer	Solid rivet
Packing Box	3/5 Ply, 750 x 750 x 425 mm Approx	3/5 Ply, 750 x 750 x 410 mm Approx

Pushpak Polycarbonate Base Plate (Technical Specification)	
Material Used	Poly Carbonate Granules
Profile Design	Customised as per your requirement
Length	Standard - 1700 mm $\pm$ 10 mm (Can be customised)
Throat Diameter	598 mm $\pm$ 5 mm
Thickness	1.8 mm to 2.0 mm
Weight	4.5 Kg. $\pm$ 0.2 Kg.

Pushpak Fibre Base Plate (Technical Specification)	
Material Used	E-Glass Chopped Strand Matt Thermosetting polyester Resin, Hardener (MEKP - AO - 9%) Accelerator (Cobalt Octate - 3%)
Profile Design	Customised as per your requirement
Length	Standard-1700 mm $\pm$ 10 mm (Can be customised)
Throat Diameter	598 mm $\pm$ 5 mm
Thickness	1.8 mm to 2.0 mm
Weight	5.5 Kg. $\pm$ 0.2 Kg.



Pushpak Sandwich Puf Panels

Introduction : Sandwich panels are a type of construction material that consists of an insulating foam core sandwiched between two outer layers, typically made of metal or composite materials.

These panels offer excellent thermal insulation, high strength, and durability, making them ideal for various applications such as roofing, wall cladding, cold storage, and industrial buildings.

Sandwich PUF panels are lightweight, easy to install, and provide energy-efficient solutions that contribute to reduced heating and cooling costs. They are also fire-resistant, environmentally friendly, and customizable in terms of size, thickness, and design.

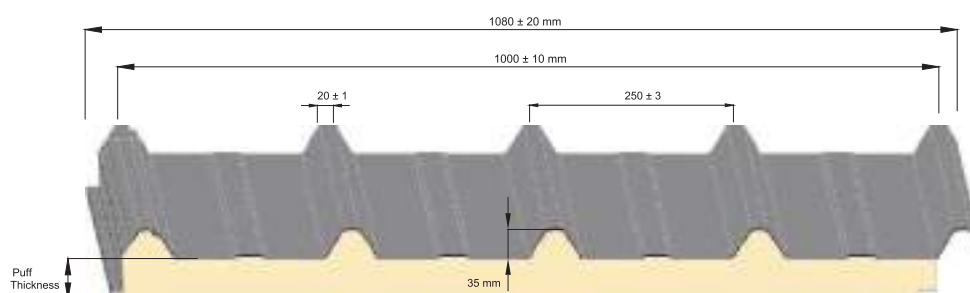
Overall, sandwich PUF panels are a versatile and efficient choice for modern construction, providing insulation, structural integrity, and aesthetic appeal to buildings.

PUR Panels and PIR Panels : There are two types of polyurethane panels in the market, PUR (polyurethane foam) & PIR (polyisocyanurate foam), both offering excellent thermal insulation, the latter being the one with the best fire performance

PRODUCT		PUF PANEL	
Length of Panel	Up to 12.5 MTR any size	Density (kg/m3)	40(±2)
Width- Wall	Supply width 1020mm Cover width 1000mm	Thermal Conductivity at 10c° mean temperature (w/m*k)	0.023
Width- roof	Supply width 1080mm Cover width 1000mm	Compressive strength at 10% deformation (kg/cm2)	2.1
PPGI / PPGL Thickness (mm)	0.4mm / 0.45mm / 0.50mm / 0.6mm / 0.7mm / 0.8mm	Bending strength (kg/cm2)	4
Puf Core Thickness (mm) Wall	30, 40, 50, 60, 80, 100, 120	Tensile strength	250 to 550 Mpa
Puf Core Thickness (mm) Roof	30, 40, 50, 60, 80, 100, 120, 150	Adhesive strength (kg/cm2) foam to steel	2.9
U Value (w/m2 K)	0.53, 0.43, 0.33, 0.28, 0.22, 0.18, 0.15	Water absorption (volume%)	0.2% at 100% RH
R Value (h-ft-°f/btu)	11, 13, 16, 20, 26, 30, 3,8	Closed Cell Content (%)	92 -95%
Facia Options	PPGI, PPGL, ALU, Cement sheet, SS, Laminate sheet	Vapour permeability at 90% RH & 38 0c (Gms / Hr.sqm)	0.12
		Fire Class	Fire retardant

Pushpak Puf-Roof Panels

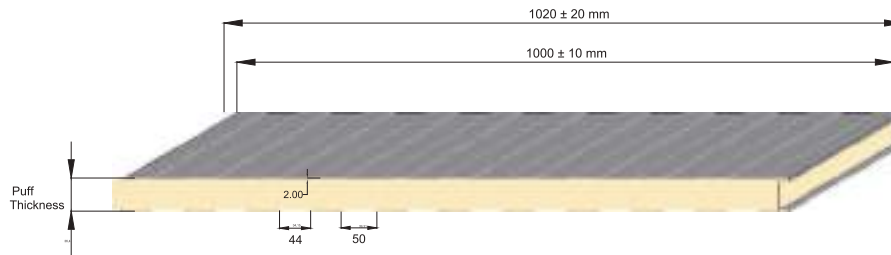
- Sandwich panels for roofing have gained significant popularity in the construction industry, offering a comprehensive solution that combines strength, insulation, and efficiency.
- These panels, consisting of two outer layers with an insulating core material in between, provide numerous advantages that make them an excellent choice for roofing applications.
- Sandwich panels for roofing provide a winning combination of thermal insulation, strength, durability, and cost-effectiveness. Their excellent performance in insulation, lightweight design, quick installation, and versatile aesthetics make them an ideal choice for roofing applications.
- Experience the benefits of sandwich panels for your roofing needs and enjoy a durable, energy-efficient, and visually appealing roof that enhances the overall functionality and aesthetics of your building.



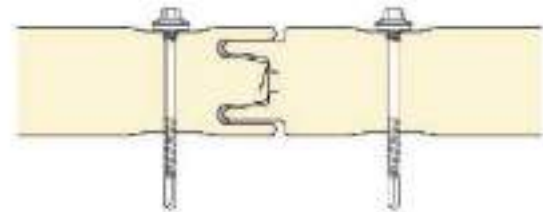
Technical Specification				
Supply Width	Covered Width	Pitch	Crest Height	Crest Width
1080 mm (± 20 mm)	1000 mm (± 10 mm)	250 mm (± 3 mm)	35 mm (± 2 mm)	20 mm (± 1 mm)

Pushpak Puf Wall Panels

- Sandwich Puf panels for facades / Wall Cladding
- Wall cladding sandwich panels have revolutionized the construction industry, providing a versatile and efficient solution for building facades.
- These panels, consisting of two outer layers with an insulating core material in between, offer a range of benefits that enhance the aesthetics, performance, and energy efficiency of buildings
- With their easy installation, weather resistance, and acoustic performance, these panels enhance the overall building envelope and contribute to a comfortable and visually appealing environment.
- Embrace the benefits of wall cladding sandwich panels and elevate the aesthetics and performance of your building facade.



Technical Specification	
Supply Width	Covered Width
1020 mm (± 20 mm)	1000 mm (± 10 mm)

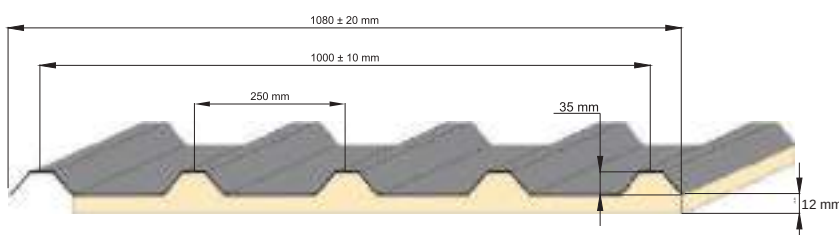


Pushpak PROShield - 12 mm PUF Panel

Pushpak ProShield 12 mm Puf Panel are relatively thin and are often used in applications where moderate insulation is required.

Pushpak ProShield 12 mm PUF panels consist of three main layers :

- Outer Skin : Typically made of materials like steel, aluminum, or other metals, the outer skin provides structural support and protection from environmental factors.
- Insulation Core: The core of the panel is filled with polyurethane foam or PUF, which is an excellent insulating material known for its high thermal resistance and low thermal conductivity. PUF helps to maintain a comfortable indoor temperature by minimizing heat transfer.
- Inner Skin: Inner skin is normal made of Aluminium foil or LDPE film



Technical Specification				
Supply Width	Covered Width	Pitch	Crest Height	Crest Width
1080 mm (± 20 mm)	1000 mm (± 10 mm)	250 mm (± 5 mm)	35 mm (± 2 mm)	20 mm (± 2 mm)



Pushpak - Cold Room Panels

- Our mission is to be the premier manufacturer of cold room panels, dedicated to providing cutting-edge solutions for temperature-controlled storage and preservation.
- Through our relentless commitment to quality, innovation, and customer satisfaction, we strive to deliver superior cold room panels that optimize energy efficiency, maintain precise temperature control, and ensure the integrity and freshness of stored goods.
- By leveraging our expertise in panel manufacturing and cold chain technologies, we aim to empower industries such as food, pharmaceuticals, and logistics to enhance product safety, minimize wastage, and improve operational efficiency.
- Together with our customers, we aim to build a future where cold storage solutions drive sustainable growth and make a positive impact on global supply chains.



Pushpak - Puf Insulated Doors

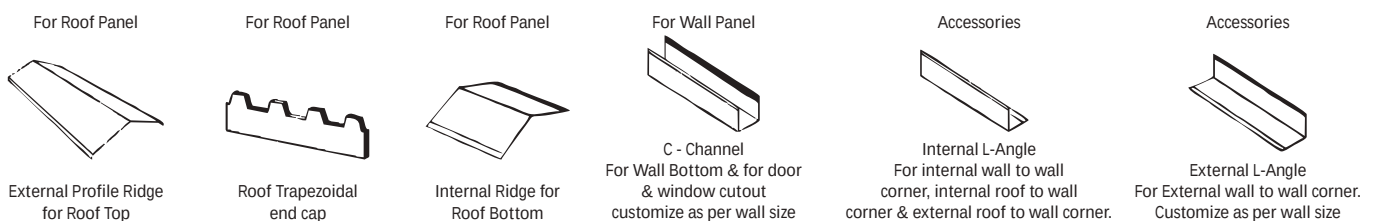
- PUF (Polyurethane Foam) doors are specialized doors that feature a core made of PUF insulation material. These doors are commonly used in various industrial and commercial applications, including cold storage facilities, warehouses, cleanrooms, and other environments that require temperature control, sound insulation, and energy efficiency.
- PUF doors offer a reliable and efficient solution for environments that require insulation, soundproofing, and energy efficiency. Their thermal insulation properties, durability, customization options, and compliance with industry standards make them suitable for a wide range of applications where temperature control, hygiene, and security are crucial considerations.

Technical specifications

- PUR and PIR insulation alternatives
- Door thickness 60, 70, 80, 90, 100, 120 mm thickness options
- Density 40 (+/-) 2 Kg/m³
- Temperature range : -40 °C to +55°C
- Pre painted galvanized steel, Stainless Steel having inner & outer sheet
- Tensile Strength : 250 mpa to 550 mpa
- Adhesive Strength : 2.9 Kg/cm²
- Water Absorption : 0.2% Max at 98% RH



ACCESSORIES



Pushpak PRO - Insulation

- Industrial insulation refers to the application of insulation materials and techniques in industrial settings, such as factories, power plants, refineries, chemical processing plants, and other heavy industrial facilities. The primary purpose of industrial insulation is to improve energy efficiency, maintain stable process temperatures, and enhance safety in these environments.
- Key aspects and considerations related to industrial insulation include:
 - Energy Conservation: In industrial processes, a significant amount of energy is often used for heating or cooling purposes. Properly applied insulation can reduce heat loss or gain, minimizing energy consumption and lowering operational costs.
 - Temperature Control: Many industrial processes require precise and consistent temperature control for optimal efficiency and product quality. Insulation helps maintain stable temperatures, reducing the impact of external temperature variations and preventing heat loss or gain during material processing.
 - Process Efficiency: Insulation can enhance process efficiency by minimizing heat loss in piping, tanks, and equipment. This helps shorten the warm-up or cool-down periods required during startup and shutdown, reducing downtime and increasing overall productivity.
 - Safety and Personnel Protection: Industrial insulation also plays a crucial role in protecting workers from exposure to extreme temperatures on hot or cold surfaces. It can prevent burn injuries and create a safer working environment.
 - Condensation Control: In environments where temperature differentials exist between the internal and external surfaces of equipment and piping, insulation can help prevent condensation formation, reducing the risk of corrosion and mold growth.
 - Acoustic Insulation: Some industrial processes can generate significant noise levels. Acoustic insulation helps to minimize noise pollution and create a quieter and more comfortable working environment for employees.
 - Fire Protection: Certain types of insulation materials have fire-resistant properties, contributing to fire protection and safety in industrial settings.
 - Chemical Resistance: In chemical processing plants, industrial insulation may need to withstand exposure to corrosive or hazardous substances. In such cases, insulation materials with appropriate chemical resistance properties are used.
- The choice of insulation material for industrial applications depends on factors like the operating temperature range, the type of process, the level of mechanical or chemical stress, and any specific safety or environmental requirements. Commonly used industrial insulation materials include glass wool, rockwool, EPE Foam, XLPE Foam and bubble insulation
- Proper installation is critical to ensure the insulation functions as intended. Industrial insulation work is often performed by specialized contractors experienced in dealing with the unique challenges and safety considerations of industrial environments. It is essential to follow industry standards, regulations, and best practices to achieve the desired insulation performance and ensure a safe and efficient industrial operation.

Thickness	4.00 mm	8.00 mm	10.00mm	12.00 mm
Material	PE Bubble (both sided aluminium foil)	PE Bubble (both sided aluminium foil)	PE Bubble (both sided aluminium foil)	PE Bubble (both sided aluminium foil)
Emissivity	5 %	3 %	3 %	3 %
Reflectivity	95 %	97 %	97 %	97 %
Fire retardant	Yes	Yes	Yes	Yes
Operating Temp.	-40° to 100° C	-40° to 100° C	-40° to 100° C	-40° to 100° C
Noise Reduction	3dBA	4dBA	5dBA	5dBA
Size	1.250 X 60mtr	1.250 X 40mtr	1.250 X 30mtr	1.250 X 30mtr

Bubble Insulation -
Pushpak PRO Insulation



Glass wool Insulation -
Pushpak PRO Insulation



Rock wool Insulation -
Pushpak PRO Insulation



Architectural Products

- Architectural products for roofing encompass a diverse range of materials, elements, and systems designed to serve both functional and aesthetic purposes in the construction and design of roofs. These products are essential components of a building's roofing system, playing a crucial role in protecting the structure from environmental elements while also contributing to the overall visual appeal and architectural style of the building.
- Roofing materials are chosen based on factors such as climate, building design, and the desired appearance of the roof. Some of the most common architectural roofing products include multiwall polycarbonate sheets, roof shingles, tiles, metal roofing, stone coated tiles, and UPVC tile profile. Each of these materials offers specific advantages in terms of durability, energy efficiency, and aesthetics, allowing architects and builders to tailor roofing solutions to the unique needs of a project.
- The choice of architectural products for roofing can significantly impact the overall design and functionality of a building. By selecting the right combination of roofing products, a building's roof can provide both reliable protection and a distinctive, visually pleasing architectural statement.

Stone Coated Tile

- Stone-coated tiles, also known as stone-coated metal roofing, are a type of roofing material that combines the durability and strength of metal with the aesthetic appeal of natural stone. They are designed to mimic the look of traditional roofing materials like clay tiles, wood shakes, or asphalt shingles and offer improved performance and longevity.



Upvc Tile Profile Sheet

- UPVC (Unplasticized Polyvinyl Chloride) tile profiles are a type of roofing material made from rigid, durable plastic. They are designed to mimic the appearance of traditional roof tiles while offering several advantages over other roofing materials. UPVC tile profiles are commonly used for residential and commercial roofing applications.
- UPVC is a rigid and non-flexible material, making it resistant to impacts, cracking, and weathering. It can withstand exposure to UV rays, extreme temperatures, and heavy rain without significant degradation.



Pushpak PROTile - Tile Profile Sheet

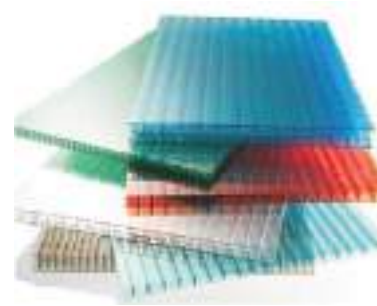
A metal tile profile sheet is a roofing material designed to mimic the appearance of traditional clay or concrete tiles, but it's made from durable metal. This roofing sheet combines the aesthetics of tiles with the benefits of metal, offering durability, weather resistance, and a lightweight structure for various architectural projects.



Multiwall Polycarbonate Sheet

Multiwall polycarbonate sheets are a type of polycarbonate plastic sheeting that consists of multiple walls or layers separated by air spaces. These sheets are lightweight, strong, and known for their exceptional thermal insulation and light transmission properties. They are widely used in various industries and applications due to their versatility and performance characteristics.

Multiwall polycarbonate sheets are manufactured using the extrusion process. The polycarbonate material is melted and then pushed through a die to form the desired profile with multiple walls separated by air pockets



Multiwall polycarbonate sheets are a highly versatile and durable option for a wide range of applications. They come in a variety of colours, finishes, and structures that offer multiple outstanding benefits. One of the main benefits is their lightweight design, which makes them easy to handle and install. The sheets are also stiff, providing excellent structural integrity.

In addition, these sheets offer excellent thermal insulation, which makes them a great option for applications where energy efficiency is a major consideration. The multi-wall structure of the sheet provides excellent insulation characteristics, making them an ideal choice for environments where temperature control is important. Heat losses are significantly lower than those of mono-wall glazing materials, meaning that the sheets can help reduce heating and cooling costs.

Another outstanding benefit of their long-term light transmission. The sheets are designed to provide maximum light transmission over a prolonged period, which means they won't turn yellow or lose their transparency over time. This makes them ideal for use in applications such as conservatories, commercial greenhouses, and swimming pools, where natural light is important.

The sheets are also UV and condensation-resistant, making them suitable for use in a wide range of environments. The proprietary UV-protected surface of the sheet provides superior resistance to outdoor weathering, which means they won't degrade or become discolored over time. The sheets also feature a proprietary two-sided surface treatment designed to protect against the degrading effects of ultraviolet radiation in natural sunlight.

Finally, these products come with a minimum 10-year limited written warranty against excessive yellowing, loss of light transmission, and loss of strength due to weathering. This makes them a great long-term investment for applications such as industrial buildings, offices, and football stadiums. Overall, sheets are an excellent choice for anyone seeking a durable, versatile, and energy-efficient glazing solution.



Turnkey Roofing solution (Supply & Installation of sheets)

- Pushpak Infra Steel Private Limited is a leading provider of Turnkey Roofing solution. With a proven track record of delivering high-quality installations, we have established ourselves as a trusted partner for businesses across various industries. Supported by a team of experts and cutting-edge technology, we strive to provide efficient, reliable, and cost-effective solutions for our clients.

- Founded in 1985, Pushpak Infra Steel Private Limited has rapidly grown into a reputable company in industrial roofing. Over the years, we have completed numerous projects across India, serving clients from different industries such as manufacturing, automotive, food processing, pharmaceuticals, and more. Our commitment to excellence and customer satisfaction has been the driving force behind our growth and success.

Services:

1. Turnkey Installation Services: Our turnkey installation services cover a wide range of industrial installation projects, including Roofing sheet installation, purlin erection, standing seam system, clip lock roofing system, Sandwich puff panels, retrofitting and more.

2. Project Management: With our in-depth industry knowledge and project management expertise, we effectively manage every aspect of the installation project, including planning, budgeting, scheduling, resource allocation, and risk management. Our dedicated project managers work closely with clients to ensure clear communication, timely execution, and adherence to project goals.

3. Technical Expertise: Our team consists of qualified engineers, technicians, and specialists who possess vast experience in handling industrial equipment and machinery. They are well-versed in the latest installation techniques, safety standards, and regulatory requirements. By leveraging their expertise, we ensure that our installations are of superior quality and meet the specific needs of our clients.

4. Equipment Procurement: In addition to installation services, we assist our clients in procuring the necessary equipment and machinery for their industrial projects. Leveraging our extensive network of trusted suppliers, we help our client's source high-quality, reliable, and cost-efficient equipment that aligns with their requirements.



Name: The Lalit Resort & Spa, Goa
Area: 24,210 sq. mtr
Product used: Pushpak Tile Profile

Quality Assurance:

At Pushpak Infra Steel Private Limited, we prioritise quality and adhere to stringent standards throughout our operations. Our robust quality management system ensures that all our installations meet or exceed industry standards and client expectations. We conduct regular quality audits and inspections to identify and address any potential issues promptly.

Safety:

Safety is a paramount concern in all our projects. We strictly adhere to safety protocols and regulations to create a safe working environment for our team members, client personnel, and other stakeholders. Our personnel receive regular safety training to promote a culture of safety awareness and minimize the risk of accidents or incidents.

Client Satisfaction:

Client satisfaction is at the core of our business philosophy. We believe in maintaining open lines of communication with our clients, understanding their requirements, and going above and beyond to deliver on their expectations. Our prompt responses, transparent processes, and commitment to excellence have earned us the trust and loyalty of our clients.

Conclusion:

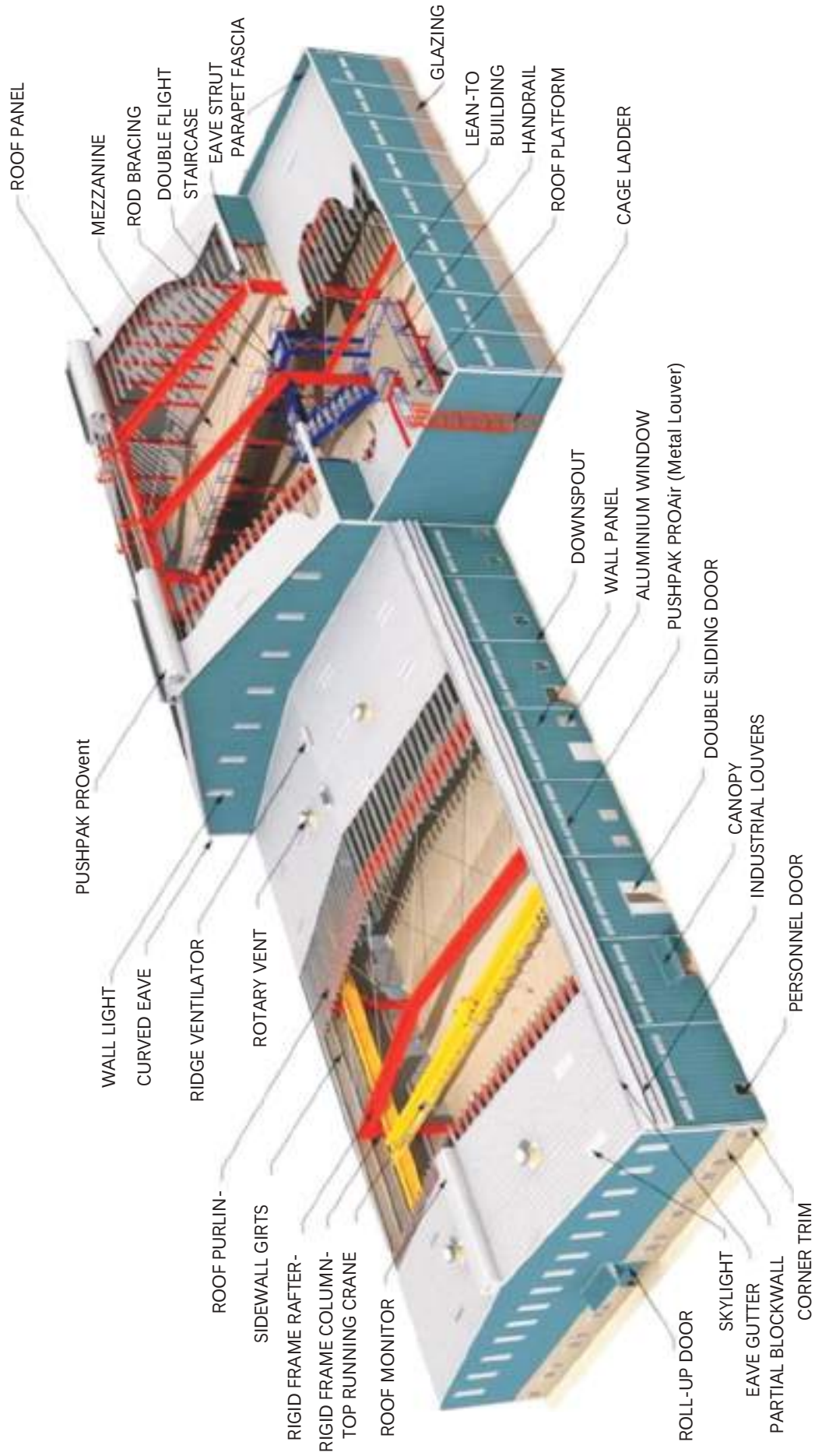
With a strong focus on quality, safety, and client satisfaction, Pushpak Infra Steel Private Limited is a trusted partner for industrial turnkey installation projects in India. Our experienced team, advanced technology, and comprehensive service offerings set us apart in the industry. We are committed to continuously improving our services to meet the evolving needs of our clients and contribute to their success.



Name: L&T Flyover, Mumbai

Area: 7540 sq mtr

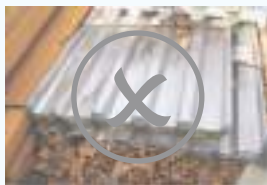
Product used: Pushpak Deck Sheet



STORAGE AND INSTALLATION

Steps to protect pre-coated metal sheets against moisture before installation are important to prevent rusting (oxidation) of the metal substrate. When metal sheets, which are strapped closely together or coil material, are exposed to moisture and heat, oxidation or rusting of the metal substrate can begin. On galvanized steel substrates, the normal sacrificial reaction of the zinc coating will occur, forming a white powder. This type of oxidation can occur beneath the paint film.

Take the following steps to control oxidation damage during storage



1. Minimize exterior storage time at the job site whenever possible.
2. Position cover panel and slanted bundles of metal sheets to insure proper drainage of Rainwater or condensed water vapor. Eliminate sagging when moisture could collect and pool. Remove outer wrapping to prevent moisture from condensing in panel bundles.
3. Don't use moisture-trapping plastic to cover panels or coils.
4. Reduce temperature build-up by protecting bunnies or coils from direct sunlight exposure. Proper handling and stacking during transit can help prevent abrasion damage. A common Cause of abrasion damage, which can easily be avoided, is the dragging of whole sheets, edges Or corners of metal panels against other panels installation. If both the paint and Galvanized coating are cut through, red rusting will be retarded by the sacrificial action of the zinc Coating, but enough damage to the surface appearance can still occur to make a touch-up Operation necessary.

IMPROPER CUTTING & DRILLING



Improper cutting and drilling of pre-coated metal sheets can also cause unsightly rust spotting. Hot chips - from drilling, saws or cutting discs - can get embedded in the paint finish and create premature rusting, making it seem that the surfaces are corroding. Chips from Adjacent steel work can embed in the paint surface of unprotected metal sheets nearby. Eliminate this problem by shearing whenever possible. Protect the paint surface temporarily with a plastic cover when saws, drills or cutting disks are in use around it. Turning over pre-painted sheets while cutting them so that chips will fall on the inside surface also helps. Workers should take care to avoid stepping on or exerting pressure against any steel chips which could embed the chips in the paint film. Immediately brush steel chips off the paint surface, using a stiff fiber brush. If they've already become embedded, dislodge them by Mechanical means. Installed sheets should never be placed in contact with soil and soil should never be pushed against installed sheets for final grading. All grease, oil, dirt, fingerprints or any other contaminants should be removed after installation to ensure proper service life from the paint film.

CLEANING COATED SURFACE

Although Metacolor polyester factory-applied finishes are extremely durable, a Periodic cleaning to remove build-ups of resins and other residue is a good idea to extend Coating life. Simple washing with plain water using hoses or pressure spray equipment is usually Adequate. When heavy deposits of dirt or other contaminants dull surfaces, a heavy-duty dry powdered laundry detergent (such as Tide/Wheel) mixed 1/3 cup with water may be used. A long-handled soft bristle brush will make cleaning easier. Following cleaning operation with a clear water rinse. In areas subject to high humidity levels, mildew can occur. Pre-coated Finishes are inherently mildew-resistant; dirt and spore deposits can permit mildew Growth to occur. The following solution is recommended to remove mildew when necessary :

1/3 cup dry powdered laundry detergent (such as Tide®)

2/3-cup tri-sodium phosphate or TSP (such as Soilax®)

1 qt sodium hypochlorite 5% solution (such as Clorox®), 3 qts water

Avoid strong solvent and abrasive-type cleaners. Remove caulk compounds, oil, grease, tars, wax and similar substances by wiping with a cloth soaked in mineral spirits. Wipe Only contaminated areas; follow with detergent cleaning and rinse thoroughly

Not following the storage instructions of Pre-painted coils/trap sheet Steel may lead to serious products quality issues (e.g., paint peel off, stains, blistering, corrosion, color changes, etc.)

1. Durability of coated steel products is also dependent on environment conditions, handling, and storage and installation practices. Refer to our above detailed brochure on "General Care, Handling & Storage of Coated Steel Materials.
2. Safety wares like helmet, hand gloves, shoes should be worn by material handling personnel.
3. On receipt of material, observe the coils while on truck in as received condition. "The tarpaulin covering", "no two coils in contact of each other" and "no physical damage" are prerequisites for material to be OK. Deviation to these conditions in the form of photograph/s is required to consider any claim. These deviations should also be recorded in LR copy.
4. Coated steel products should be handled with proper equipment during loading & offloading of the material. Tools coming in contact with material should have padding to avoid damage possible because of otherwise direct contact. Handling should be very smooth without any rapid shock during lifting & placing on floor. Coils should not be rolled on floor.
5. During transportation, coated steel material should be suitably placed on truck/ trailer floor with pallet, properly lashed with edge protector & covered with suitable protective cover.
6. Even packed coated steel materials should be neatly stacked in as received condition clear of ground, gore vertical coils to be stacked singly, bore horizontal coils on saddles with rubber pad and sheet packs stacked at an angle to assist drainage of any water ingress. Materials to be stored under shed or with suitable protective cover to protect it from rain and moisture.
7. Please install coated sheet early and within 7 days of receipt at site. Any coated material pack with water ingress should be opened immediately, wiped of the water and used on immediate basis.
8. The materials used for packing coated steel should be suitably disposed of without effecting the environment as per local law enforced.
9. During usage, equipment should be clean so that any oil/grease or foreign particle does not come in contact with the coated steel surface. Sheets should not be dragged over other sheet or surfaces.
10. In case coated steel is processed with protective film, the film should be removed at the time of installation.
11. To avoid swarf staining (rust stain on coated surface), debris or surplus items such as fasteners, iron drill particles must be removed each day after completion of installation work.

A Few of Our Clients
We are Trusted by the Best!





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