

Technology Performance Integrity



The Tiger's Story...

Introduction

Tiger Profiles and Insulation, TPI, was established in 1994 as a fully owned subsidiary of The Tiger Group of Companies to provide specialized services to the metal building construction industry. Through intense dedication and clad with an iron will to succeed, TPI has asserted itself as major power in the metal industry.

Our Mission

Tiger Profiles and Insulation aspires to maintain its standing as a primary source of the design and supply of the cold formed and insulated metal building components for roofs, walls, false ceilings and floor decks. A one-stop-shop for construction related metal requirements regionally, recognized and acknowledged.



Based on its acronym - TPI -Tiger Profiles and Insulation aims at carefully seeking and pouncing on all that is bound to increase its strength and maintain its momentum in its hunt for everlasting technical excellence and distinction in its industrial leadership.

Technology:

Instinctively on the prowl for the prime in metal building technology, the tiger's sharpness and cunning give it the prowess of the born pack leader.

Performance

In an environmental "jungle" where "performance" is the key to survival, the tiger's boundless endurance, its speed and agility, its quality and attention to detail are its trademarks that make it a supplier of the highest order.

Integrity

The tiger's "integrity" is in taking no more than it needs.



Tiger Profiles and Insulation prides itself on the well developed, comprehensive and highly innovative product line that it offers to its loyal and potential clients.

Product Line:

- Roof & Wall Cladding Wall Cladding Profiles
- T-Deck Panels
- T-Seam®
- Cold Store Panels
- Tile Profiles
- Partition Studs & Ceiling Grids
- Sandwich Panels
- Z-Purlins & C-Channels
- K-Span Panels
- Exclusive Distributors of the Big 5 2008 GAIA Award winning Solacoat and Solasteel product line
- Some of our Projects
- Accreditations

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Company Profile

Building on its prestigious membership of the well-known Tiger Group of Companies, that was established in the UAE since 1968, Tiger Profiles and Insulation's standing has steadily grown to and is confirmed as a primary source of the design and supply of the cold formed and insulated metal building components for roofs, walls, false ceilings and floor decks. A one-stop-shop for construction related metal requirements; TPI has always aimed at ensuring that clients are always given the highest priority. A TPI commitment is not only a commitment, it is also a guarantee that no effort will be spared in ensuring that client satisfaction is 100% guaranteed and attained. Our ever increasing base of clients is composed of our repeat and regular clients who continuously return for our services, bringing with them all those who appreciate the difference that we provide.

Armed with a committed team of accomplished, highly trained and efficient employees, Tiger Profiles and Insulation has over the years, made remarkable progress in realizing its mission of launching new products and developing new markets to keep up with the reputation it has molded for itself.

Steeled for success, TPI has always honored its commitment to maintain the maximum levels of Quality Control procedures as well as the Health and Safety Policies resulting in high quality products and ensuring complete customer satisfaction. At TPI, we have a great interest in "Going Green" and protecting the environment. To that extent, we are active members of the US Green Building Council (USGBC), and the Emirates Environmental Group. Moreover TPI manufactures, supplies, and caters to EPC contracts in line with three significant and internationally recognized quality certificates: the 9001 Quality Management Standards, the 14001 Environmental Management Standards and the OHSAS 18001 Health and Safety Management Standards.

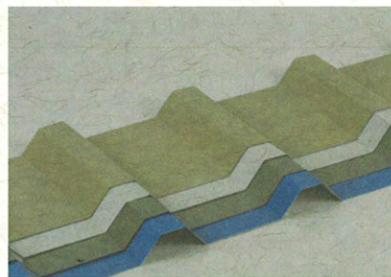
TPI is fully equipped to manufacture, supply and install cladding materials, roof panels, wall panels, floor decking panels, steel and aluminum profiled sheeting, partitioning, composite sandwich panels, cold store panels, standing seam systems T-Seam®, cold roll forming, fasteners, bolts, nuts and a range of cladding and profile materials, accessories and products. In parallel to our scope of work, Tiger Profiles & Insulation are Exclusive Distributors of the Big 5 2008 GAIA Award Winning SolaCoat/Solasteel product range to the Middle East, Asia and Africa.

Roof & Wall Cladding Profiles

Tiger Profiles and Insulation manufactures two of the most efficient roof and wall profiles available on the international market today:

- **TR 35/200** : Characterized by its corrugated depth of 35mm, pitch of 200mm and its covered width of 1000mm.
- **TR 47/180** : Characterized by its corrugated depth of 47mm, pitch of 180mm and its covered width of 880mm.

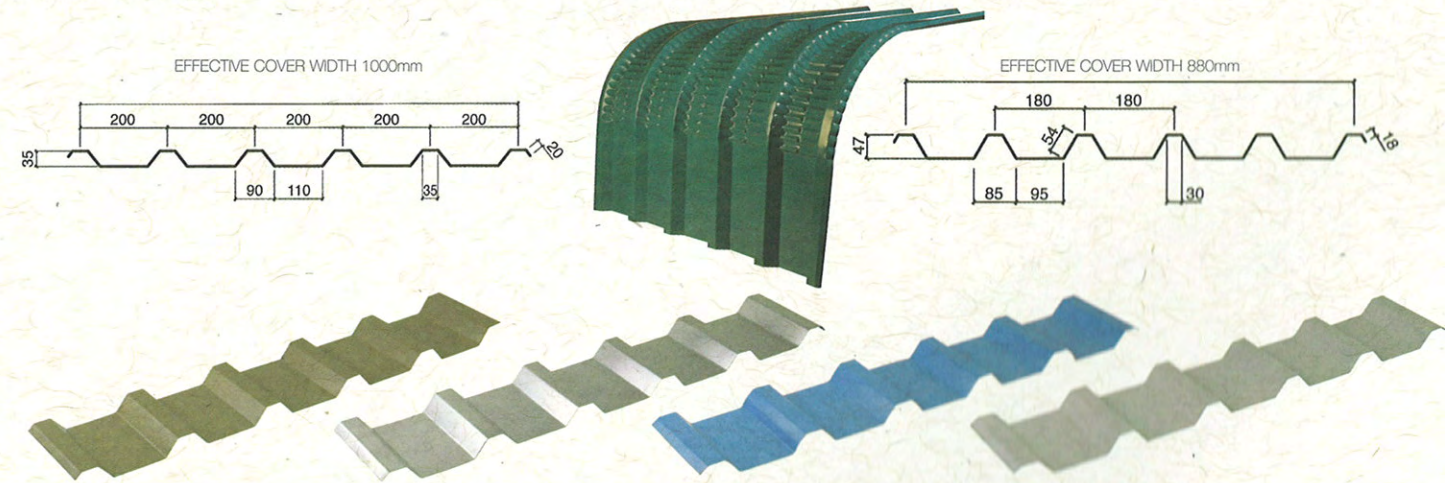
Present in a variety of different materials including aluminum, GI and Alu-Zinc, the profiles are provided in a range of thicknesses from 0.40mm to 1.00mm. A wide selection of colors and pre-painted polyester, PVF2, PVC Plastisol mill finishes ensure that architects and designers are equipped with infinite possibilities for versatile solutions for roofs and walls.



Profile TR 35/200



Profile TR 47/180

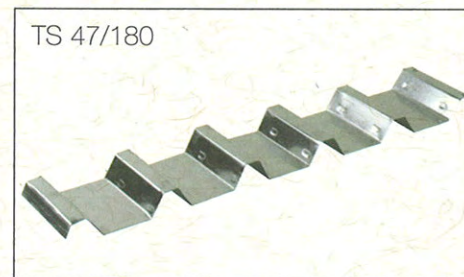


T-Deck Panels

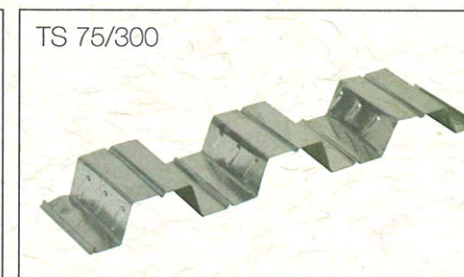
The easily and quickly constructible steel floor decks supplied by Tiger Profiles and Insulation for use in composite slabs, offer an immediate and safe working platform that reduces upto 30% of the normally required usage of concrete material while acting as a permanent formwork and slab as reinforcements in composite desks.

TPI manufactures the following deck profiles from a range of material and finishes including but not limited to GI Steel conforming to ASTM - A53, Grade D, structural quality with a yield of 345Mpa. The galvanized mill finish varies from G60 to G90 i.e 180g/m² to 275g/m²..

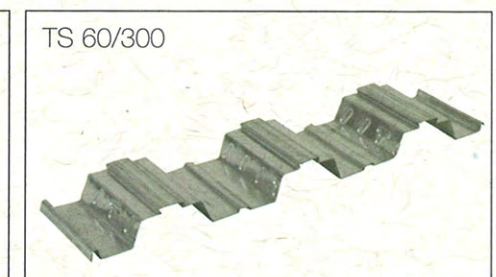
- **TS 47/180** : Characterized by its corrugated depth of 47mm, and a thickness exceeding 0.70mm, this profile is commonly used as a deck panel.
- **TS 75/300** : Characterized by its corrugated depth of 75mm, this profile is mainly used as a deck panel in floors that are of a wide span and bear superimposed loads.
- **TS 60/300** : Characterized by its corrugated depth of 60mm, this profile is mainly used as a composite deck.



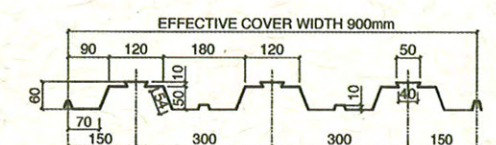
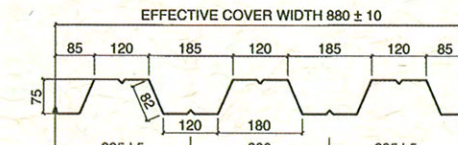
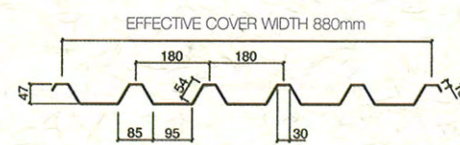
TS 47/180



TS 75/300



TS 60/300



T-Seam®

T-Seam® belongs to the family of standing seam roofing systems, wherein the roof sheets are fixed to the structure without puncturing the sheets. This is possible by using specially designed aluminum extruded seam clips. The adjacent seams of the T-Seam® sheets are overlapped over the aluminum extruded clips and closed with electronically operated closing machines, the special design feature of the seam clips allows for the expansion movements for the T-Seam® panel at the same resisting the wind uplift forces.

TPI has made a name for itself as world class source for T-Seam® panels that are available in a variety of materials: Aluminum, Alloy AA 3105 or AA 300, galvanized, color coated, stainless steel, copper and zinc.

Standing Seam Roofing System

Finishes

Aluminium panels, in either natural aluminium in stucco or mill finish are one of the finishing options provided by TPI. T-Seam® can also be supplied in colour finishes in various system such as polyester, multi coat PVDF, Polyurethane etc, in addition to being manufactured in a full range of RAL colours as well as any special colour requested by clients.

Production method

T-Seam® can be produced either in the factory or at the project site through the use of a portable roll forming machine that can roll panels in long lengths of upto 100m as a single length panel.

Shapes

T-Seam® is very flexible and can be supplied in various shapes such as

- Straight panels in variable cover width of the following types:
T-seam 65/333
T-seam 65/400
T-seam 65/500
- Concave smooth curved
- Tapered T-seam having covered width varying from 250mm at one end upto 500mm at the other end.
- Convex smooth curved

Unique features

Design flexibility

With superior weather-tightness and a long, maintenance-free life, T-Seam® roofs are the fast-growing choice for both new construction and additions to existing buildings. No matter what type of structure customers are considering, T-Seam® roof design gives customer the value and design flexibility that they seek. Steep slopes, flat roof profiles upto 1.50 and different architectural shapes in roofing are possible in this innovative system.

High performance roofing system

T-Seam® roofs can be used in almost any situation, from commercial to residential, from small storage buildings to large manufacturing plants. This roofing system lasts longer, needs less maintenance and offers superb versatility. T-Seam® roofs are engineered to withstand rain, wind, snow and sun. Each panel is joined together by a mechanically locked

seam raised above the roof's drainage plane. Jointless T-Seam® panel ensures that your roof will be leak-free for years to come. T-Seam® roof ensures adequate drainage from rain and snow, thus solving water leakage problems. The system is uniquely designed to handle the effects of thermal elongation and contraction. The clips used in the system have a movable feature that allows the panels to expand and contract with temperature changes.

Easy to maintain

Unlike flat built-up roofs that require frequent maintenance, T-Seam® roofs offer 15 years and more of trouble free performance with almost no maintenance or expense.

Durable and corrosion resistant

T-Seam® metal roofs are designed to ensure long-term durability and an attractive appearance while being resistant to corrosion and fading.

Aesthetics

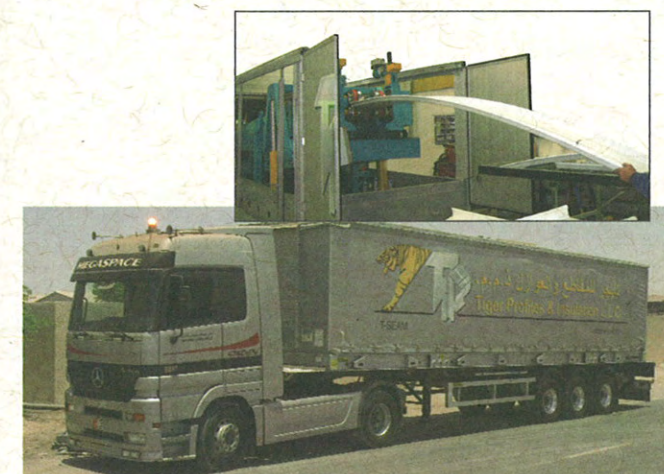
Special pigmented organic colour coatings to the base material of the roof not only enhance the aesthetic appearance but also act as an additional corrosion protection. The choice of colours allows the architects to co-ordinate the roof with other design elements of the building.

Long-lasting

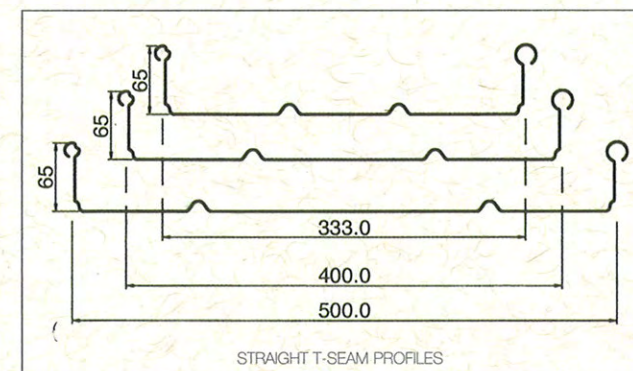
Properly installed standing seam metal roof will provide longevity with very little maintenance. This exceptional return on investment makes the T-Seam® design the most cost-effective choice for many customers. T-Seam® roofing system is as versatile as it is cost-effective. Standing seam profiles are available in various widths and heights to accommodate almost any project. In nearly all instances, T-Seam® panels are roll formed on site by a portable seam manufacturing machine, thereby decreasing the risk for panel damage during shipping.

Energy efficient

The T-Seam® roofing system are normally insulated using Fiberglass blankets, to make it energy efficient. The floating action of the roof allows to expand and contract independent of the insulation, thus eliminating roof deterioration as it normally happens in conventional built up roofs.



The T-Seam® trailer is a highly efficient portable roll-forming machine.



(A dedicated T-Seam® brochure is available separately upon request detailing more of this product's unique features.)

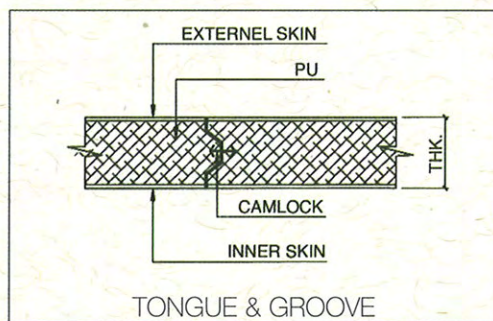
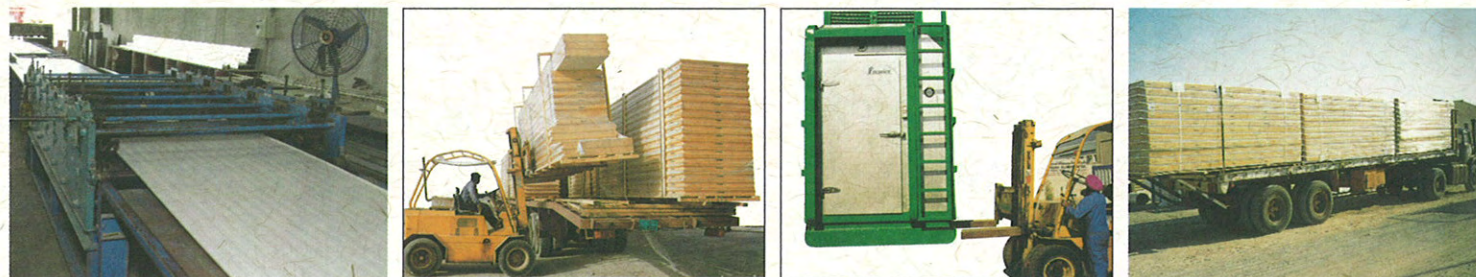
Cold Store Panels

At TPI we manufacture panels for cold stores, and these include both free standing and reefer container type panels that are designed individually to meet clients' specific requirements. These can range in thickness from 50mm to 200mm.

Our Cold store panels are foamed-in-place (not frothed) for peak insulating efficiency. All the panels are moulded with tongue-and-groove arrangements to extremely close tolerances for a tight fit between panels. Special Camlocks are used at regular intervals to prevent condensation and heat transfer.

The external metal skin is available in a wide range of standards as Mill Finish, Polyester color coated, PVF2 color coated, PVC Plastisol coated, Stucco Embossed and stainless steel.

We build cold store doors of the highest standards as per our clients' requirements, and we provide complete accessories including door locks, rubber gaskets, curtains and safety release mechanism.



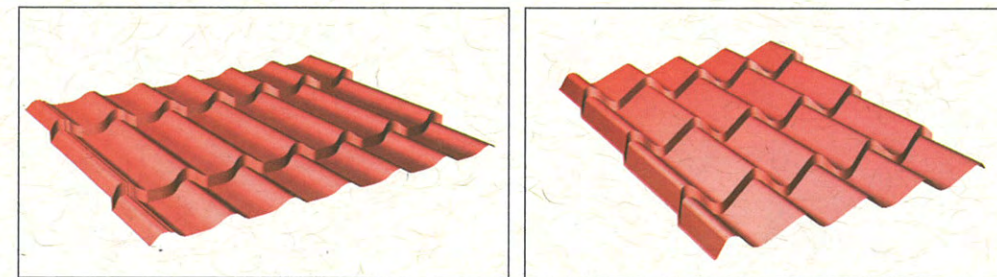
Tiger Profiles & Insulation stands behind the quality of its products and continues to be committed to maintaining a safe environment by using HCFCs in our products.

Tile Profiles

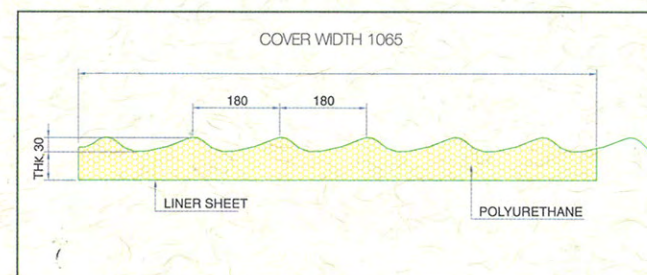
Responding to the residential buildings' market demand for roofing tile effects, Tiger Profiles and Insulation manufactures tile profile panels using rigid polyurethane with external and internal sheets of aluminum of varying thicknesses, coatings and colors as required by our clients.

The tile profiles' manufacturing process utilizes polyurethane foam of typical properties such as:

- Average density of 35 – 40kg / m3;
- Closed cell contents greater than 95%;
- Initial thermal conductivity at 23°C equal to 21mw/mk;
- Panel thickness of 50mm to 100mm;
- Dimensional stability and linear variation equal to 1% maximum at 700C.



The cladding specifications are based on the use of aluminum sheets conforming to Grade AA-3105 (En 485/4, Alloy Ns31 and Temper H.16. The top skin sheet thickness for aluminum tile profiles is recommended at 0.7mm.



Partition Studs & Ceiling Grids

The "Metal Furring Suspended Ceiling System" produced by Tiger Profiles and Insulation on site presents itself as the ideal solution to the dilemma of suspending ceilings without the incorporation of visible joints or exposed supporting members, thus allowing for a smooth finished ceiling.

Specially selected galvanized steel is used in the production process of all the studs and related accessories, and our international conforming standards are based on the following specifications:

- 1-BS 2989: Specification for hot-dip zinc coating and iron zinc alloy coated sheet steel;
- 2-BS 2994: Specification for cold rolled steel sections;
- 3-BS 7364: Specification for galvanized steel studs and channels for studs and sheet partitions and linings using screw fixed gypsum wallboards.

After extensive research, all dimensions have been carefully determined to suit the market requirements and available insulation infill materials. Ensuring availability and customer support is no longer an issue prior to ordering since the flexibility of the production scheduling allows immediate processing of special orders at clients request to avoid delays in supply.

Metal Stud Partition

Metal stud partitions' sections are lightweight, non-load bearing and quickly assembled on site. They provide low cost partitions suitable for all types of buildings. Erection can be carried out by one man. The erection time varies depending on the condition of the fixing surfaces and the optional components to be fitted. An estimated erection time is 2 to 3m² per man hour for a single layer partition, and 1.5 to 2 m² per man hour for a 100 mm double layer partition.

In order to accommodate simple plumbing and electrical conduits' penetrations, Tiger Profiles provides punched openings at regular intervals.

Tiles

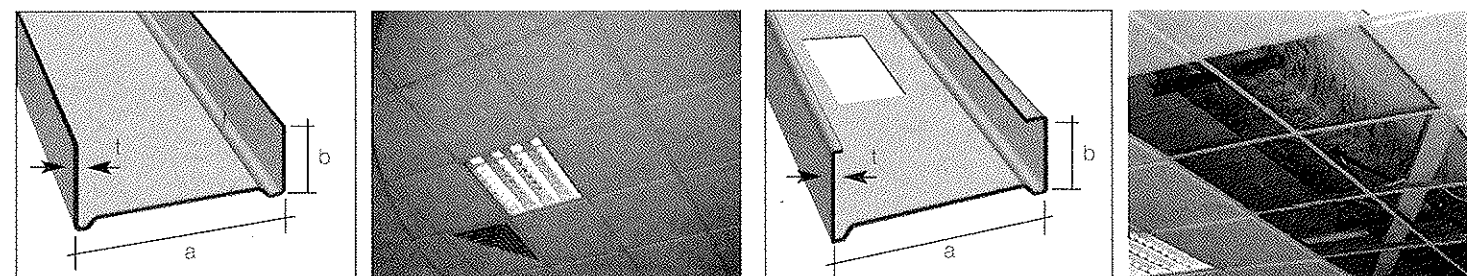
Tiger Profiles supplies a wide range of tiles from GRG to vinyl faces of different decorative shapes, thicknesses and finishes. Tiger Profiles is your guarantee for an optimum system which can easily be implemented in your work fittings.

Ceiling Grids

Tiger Profiles' components are composed of:

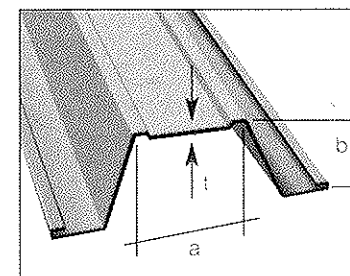
Main Runner	EX-T 381 W
Cross Tee	EX-T 331 W
Cross Tee	EX-T 281 W
Edge Angle	EX-A 24 W

This system is manufactured to accommodate 60 X 60 tiles panel.

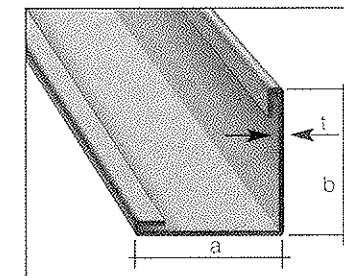


TRACK (TK) & MAIN CHANNEL (MH)			
Ref	a	b	t (all dimensions in mm)
TK49	49	24	0.5 & 0.6
TK53	53	24	0.5 & 0.6
TK63	63	24	0.5 & 0.6
TK73	73	24	0.5 & 0.6
TK93	93	24	0.5, 0.6, 0.7 & 0.8
TK100	100	24	0.5, 0.6, 0.7 & 0.8
TK150	150	24	0.5, 0.6, 0.7 & 0.8
MH38	38	11	0.5 & 0.6

STUDS (SD)			
Ref	a	b	t (all dimensions in mm)
SD48	48	30	0.5 & 0.6
SD52	52	30	0.5 & 0.6
SD62	62	34	0.5 & 0.6
SD72	72	34	0.5 & 0.6
SD92	92	34	0.5, 0.6, 0.7 & 0.8
SD98	98	34	0.5, 0.6, 0.7 & 0.8
SD148	148	34	0.5, 0.6, 0.7 & 0.8



Furring Channel (FH)			
Ref	a	b	t (all dimensions in mm)
FH35	35	23	0.5



Edge Angle (TL)			
Ref	a	b	t (all dimensions in mm)
TL49	25	25	0.5 & 0.6

Bottom cover finish

The visible bottom flange is 24 mm wide and is covered in white colour coating capping. We can also offer the capping in a wide range of attractive colour shades.

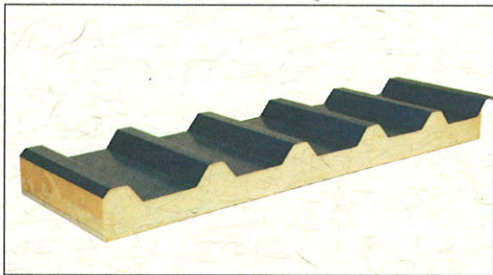
Component	Product Number	Nominal Dimension		Colour
		Length (cm)	Weight kg/pc	
Main Runner	EX - T 381 W	360	1.46	White
Cross Tee	EX - T 331 W	120	0.44	White
	EX - T 282 W	60	0.20	White
Edge Angle	EX - A 24 W	300	0.60	White

Sandwich Panels

Tiger Profile Insulated sandwich panels are processed using rigid polyurethane with external and internal sheet in steel, alu-zinc and aluminium of different thickness, coating and colors.

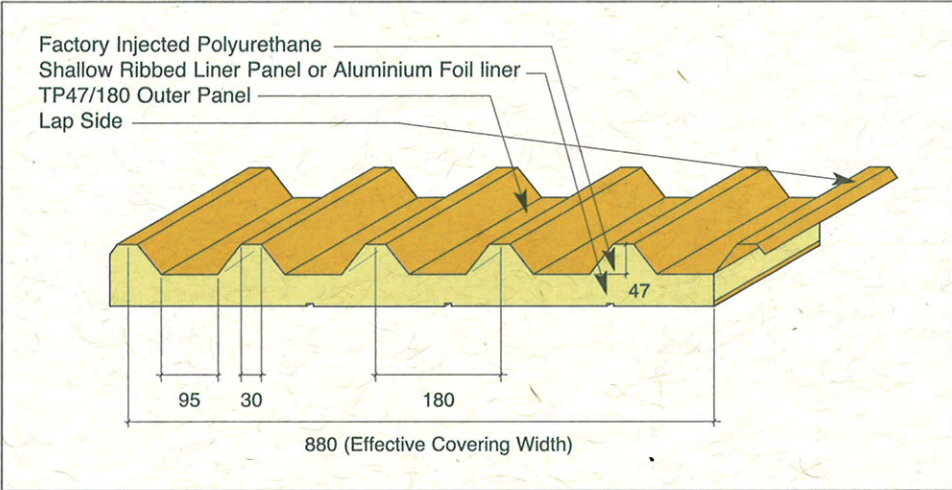
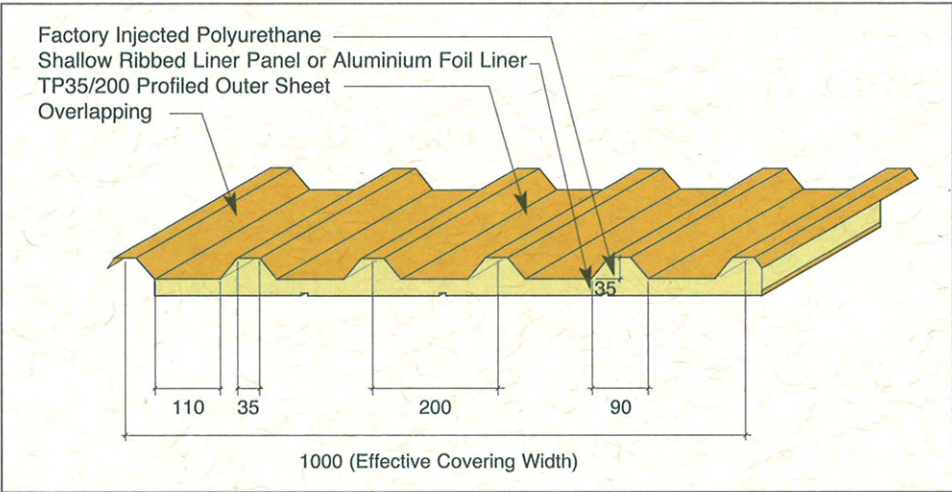
General Physical Properties of Polyurethane:

- Overall Density = 35 to 38 kgs/m³
- Closed cell contents = > 90%
- Thermal conductivity = 0.021 W/m^oK
- Compressive strength = 0.21N/mm²
(perpendicular to the main plane of the panel)



Dimensional Stability (Liner Changes)

- 48 hours @ -25° C = 1% max
- 48 hours @ 70° C = 1% max
- Pu Thickness = 50mm to 150mm



Profile 35/200

Thermal resistance of Polyurethane at various Polyurethane Foam Thickness

Pu Tickness In mm	K w/m ^o K	U Value w/m ² °k/w
35	0.021	0.600
50	0.021	0.420
75	0.021	0.280
100	0.021	0.210

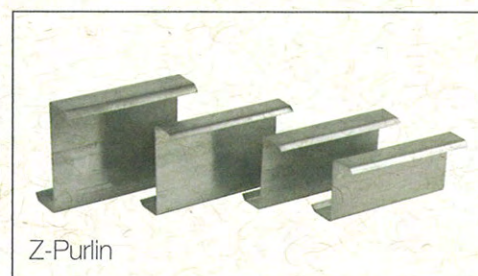
Profile 47/180

Thermal resistance of Polyurethane at various Polyurethane Foam Thickness

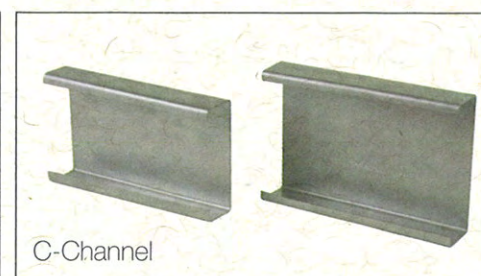
Pu Tickness In mm	K w/m ^o K	U Value w/m ² °k/w
50	0.021	0.420
75	0.021	0.225
100	0.021	0.117

Z-Purlins & C-Channels

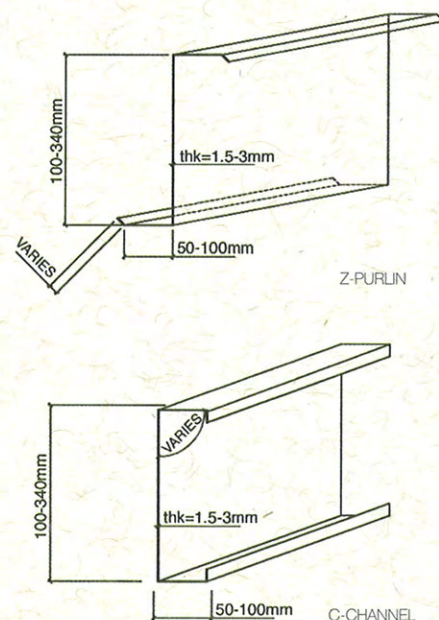
- Z-Purlins / C-channels are the secondary structural members used to support the roof sheeting / wall cladding.
- Our range for depth of these purlin varies from 100mm upto 400mm and thickness varies upto 3.0mm.
- Flange widths / lip size / flange angles of the sections can be set in the machine, as per the requirement of the client
- These purlins and channels sections give an excellent strength- to- weight ratio, thus giving tremendous cost savings.
- These are manufactured from galvanized coils conforming to ASTM - A 653, Grade D having an yield strength of 345 Mpa.
- Our purlins and channels are custom made to the desired size having the flexibility of its connection to the main structure either by overlapped system or sleeved system.



Z-Purlin



C-Channel



- The anti-sag rods, connection fasteners for these purlins can also be designed and supplied by us on client's request.

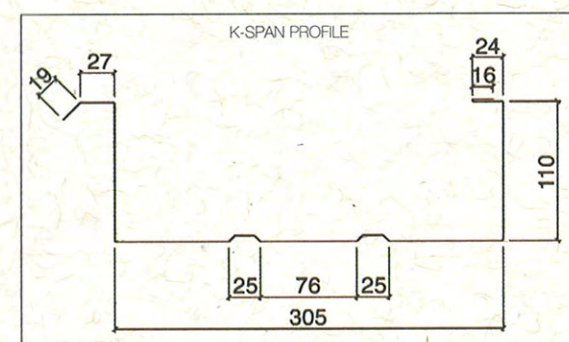
• Benefits of Tiger Purlins/channels :

- High strength to weight ratio.
- Economical.
- Can be used for large spans upto 11.0m.
- Better quality and finish.
- Quick Installation.
- Custom made to requirement.

K-Span Panels

The K-Span Panels meet the most demanding standards for commercial, industrial, agricultural, military or institutional use with an entirely different approach to the task of providing pre-engineered buildings. The major advantage of such panel construction is that it eliminates conventional steel structure, thus drastically reducing the overall time required to get from concept to reality.

The Panels are roll formed on site to the required length using the portable roll forming machine. These panels are self supporting and modular. The foundation is prepared and the panels get connected in a straight or arched fashion and are shaped into a solid unit.



Advantages of K-Span Panels:

- Durability - Lifetime waterproof seams.
- Versatility - adapts to a wide variety of design and functions , can be used in tandem with conventional structures.
- Speed of construction.
- Lower costs.
- Need only one basic material ...steel coils.
- Easy to insulate, easy to expand and modify.

Solacoat

Besides maintaining our existing product line, and constantly seeking innovative upgrades to our existing products, we have developed, and introduced, together with our principals, Solacoat; a new option to the insulation of our panels.

Solacoat, originally an Australian product, represented by our Australian principals, Coolshield International, is a revolutionary, water-based paint, that provides a Radiant Barrier Insulation coating that reduces temperature. Solacoat is the most efficient and most cost effective form of heat insulation commercially available today. It is a waterborne acrylic emulsion based product, which has a special membrane additive which aids in rejecting the infra red rays from the sun.

As Exclusive Distributors of Solacoat in the Middle East, Asia and Africa, we offer our cladding clients the option of applying this paint to a single skin panel when clients are in need of keeping the heat out of areas that are not air-conditioned. It can also be applied, in a number of forms, to a PU sandwich panel to provide maximum heat insulation from external heat, and the highest levels of solar reflectivity while providing maximum efficiency in keeping the air-conditioned air inside the insulated area.

How it Works

Solacoat works by reflecting solar energy from the surface to which it is applied. Long term testing has shown that for a galvanised iron or colourbond steel

roof, the application of Solacoat to the exterior surface will reduce the heat load to be removed by the air conditioner, by reducing the surface temperature of the roof as much as 40°C. Power savings for a typical building with a roof area of 10,000 square metres could be expected to be 100,000 Kwh per year or more. This would give a reduction in greenhouse gas emissions for this building alone, of about 100 tonnes per annum.

Solacoat requires little energy in production and has the economic benefit of a payback period of 4 to 5 years. In addition, it does not require any special technology to apply, and cost and environmental benefits start immediately with minimal ongoing cost and maintenance demands. Should the use of Solacoat be factored into the design of a new building, a further reduction in the payback period could be expected.

Recognized for its innovative and environmental qualities, the Solacoat and Solasteel product line was awarded one Gold and two Silver Big 5 2008 GAIA Awards

Solacoat Silver BIG 5 2008 GAIA Award Winning Glossy Acrylic Coating:

Solacoat Glossy Acrylic Coating is a premium, high opacity acrylic paint finish originally designed for moderating temperature extremes on exterior metal surfaces. Its tough, flexible finish gives long lasting protection against weathering, excellent resistance to mould and fungal growth in addition to excellent adhesion, flow and quick drying (same day recoat). Solacoat Glossy Acrylic may also be used on interior/ exterior surfaces. It is eminently suitable for coating primed external metal surfaces where control of temperature extremes is paramount.

Solacoat Cool-It-Cream Coating:

This range of highly durable, selected topcoat colors for use on roofs where lowered roof temperatures due to better heat management are combined with appealing conventional roofing colors. The cutting-edge technology used in the colors permits significantly lower heat ingress to penetrate the under-roof space which then radiates through into the living/working spaces of homes and buildings while maintaining maximum durability and service life of the roof coating and the actual roofing material. Temperature reductions inside the living/ working areas can be between 8 - 12°C cooler than with

similar colors made using traditional roofing coatings. This reduced heat influx through the roof cavity can then be translated into much reduced demand on air-conditioning power units resulting in actual cost savings and also through reduced green-house gas emissions.

Solacoat Silver Big 5 2008 GAIA Award Winning Pavement Coating:

Solacoat Heat Reflective & Non-Slip-Waterproof Pavement Coatings is a new water based coating specifically designed to give a hard wearing, non slip and waterproof surface with minimal heat absorption characteristics to pedestrian walk areas, broad-area pedestrian areas and when top coated with Solacoat Clear Sealer can be used in light vehicle traffic areas and parking lots as well as paved poolsides.

Gold Big 5 2008 Winning SolaSteel Coating:

Solasteel is the world's first commercially available pre-coated water based acrylic metal sheeting for roofs, walls and other applications that has significant advantages over current existing pre-coated material. Solasteel has been proven to be successfully and efficiently compatible with a range of metal components such as aluminum, galvanized iron and others.

Solasteel helps provide more comfortable working conditions, lower cooling costs and subsequent Greenhouse gas emissions. Amongst its many competitive characteristics, Solasteel has been proven to, besides being cost effective and competitive, provide high heat reduction coating and rejects 74.1% of the Sun's Solar Rays from the surface, providing much lower heat build-up in buildings.

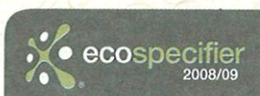
Solasteel also provides longer gloss retention than existing pre-coated solvent based polyester material. In addition, Solasteel has been proven to lower energy costs in all climate zones during the hotter months of the year, thereby reducing the global impact of high energy consumption on the environment.

Solacoat Railway Coating:

Under the heat of the baking sun, and through the heavy use of the lines by regular use of the railway tracks, the thermal heat elongation factor can create much harm. This can be greatly reduced by the application of Solacoat which protects the tracks and railway lines from the thermal heat elongation factor. Tests in Australia have proven that on a clear day and with the ambient temperature peaking at 28°C, Solacoat reduces temperature in the rail track by 7°C. Later tests showed as much as a 16°C difference. The added benefit of this is that it reduces the thermal elongation factor also minimizes the high risk of rail track misalignment which is a major cause of railway accidents and deaths every year around the world.



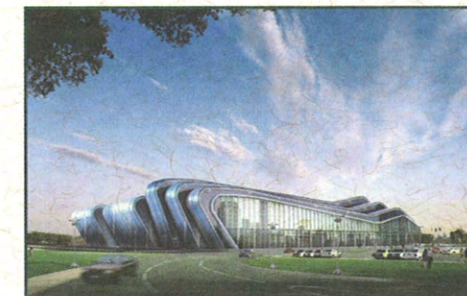
(A dedicated Solacoat brochure is available separately upon request detailing more of these products' unique features.)



THE BIG
5 GAIA
AWARD
2008
GOLD

THE BIG
5 GAIA
AWARD
2008
SILVER

Some of our Projects



Accreditations



- ISO 9001 Quality Management Standards Certificate
- ISO 14001 Environmental Management Standard Certificate
- OHSAS 18001 Health and Safety Management Standard Certificate
- Members of the USGBC
- Members of the Emirates Environmental Group
- Certified by EcoSpecifier International
- Award Winners of the First Gold Big 5 2008 GAIA Awards for the exclusively distributed 100% envirometaly friendly Solasteel heat reflecting metal coating.
- Award Winners of the First Silver Big 5 2008 GAIA Awards for the exclusively distributed 100% envirometaly friendly Solacoat heat reflecting coatings.
- Award Winners of the First Silver Big 5 2008 GAIA Awards for the exclusively distributed 100% envirometaly friendly Solacoat heat reflecting non-slip pavement coatings.

