Steel Floor Deck 47/180

TigerPROFILES & Insulation—The "Roof & Cladding" Company

TigerPROFILES & Insulation, the "Roof & Cladding" company is a comprehensive source to the construction industry's Roofing, Cladding & Insulation solutions.

Established in the UAE in 1993 as the "cladding" arm of the Tiger Steel Group of Companies, **Tiger**PROFILES, operates three plants/factories that serve the GCC, Middle East, Asia & Africa's need for its specialized products and systems.

The product line presented by **Tiger**PROFILES encompasses roof panels, wall panels, floor deck panels, steel & aluminum profiled sheeting, partitioning, sandwich panels, concealed fix wall panels, pre-insulated partitions, cold store panels, standing seam systems (known as T-Seam®), & cold formed sections both standard & customer specific as well as all the required accessories.

TigerPROFILES extends Design, Engineering, Manufacturing, Supply & Installation services to its clients, thus placing it in a position to serve its clients as a one stop-source.

In parallel, **Tiger**PROFILES is the sole distributor – Middle East, Asia & Africa for SolaCoat & SolaSteel triple award winning eco-friendly "green" heat reflecting coatings.

TigerPROFILES is classified as one of the largest producers in the UAE & a regional & major manufacturer of PUR/PIR/ Mineral wool insulated panels.

Standing tall, **Tiger**PROFILES has raised itself from the crush of the crowd by setting international standards that set it apart from any other companies in the business.

Adhering to ISO 9001, ISO 14001 ,OHSAS 18001, FM Approvals (USA), DBIT Approvals (Germany) as well as Dubai Municipality & Dubai Civil Defense is only the tip of the commitment to international standards by **Tiger**PROFILES' management.

Its commitment to the Environment is loud & clear – an active member of the Emirates Environmental Group, **Tiger**PROFILES not only works on protecting the environment, but also works on caring, cleaning & maintaining it.

TigerPROFILES is a member of the US Green Building Council & the Green Aviation & Logistics Group.

Carrying Capacity (wet Concrete)

The formulae used in the development of the load tables are based on American (AISI) Standards.

When placing concrete, care should be taken to avoid high pile up of concrete and to avoid impacts caused by dropping or dumping.

Concrete Density	25 KN/m^3
Pouring Impact	25%
Deflection	L/200
Flange Curling	<5%

Steel Deck Product Range

> **Material:**
- G.I (Galvanized Steel Grade SQ-50 (ASTM A653M).

> **Finish:**
- G90 (275 grams/m^2 Zinc Coating)

> **Material Thickness:** 0.60mm to 1.20mm

> **Color:** RAL Color range; special colors can be accommodated upon client request.

> **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. (Please see below illustration)

> **TS 60/300 :** Characterized by its corrugated depth of 60mm, this profile is mainly used as a composite deck.

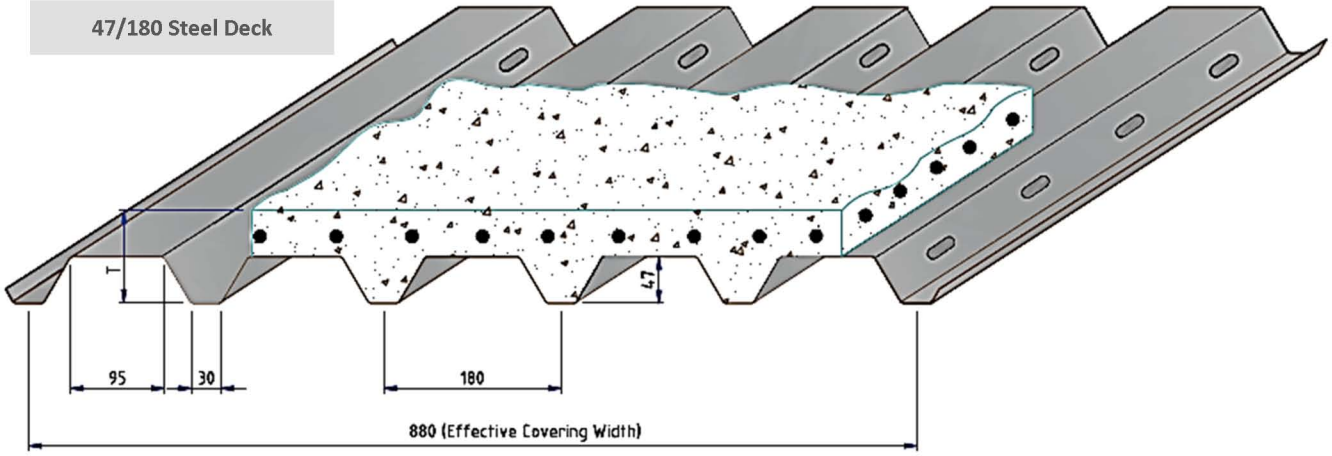
> **TS 75/300 :** Characterized by its corrugated depth of 75mm, this profile is mainly used as a deck panel in floors that are of a wide span and bear superimposed loads.

Steel Decks

The easily and quickly constructible steel floor decks supplied by **Tiger**PROFILES 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.

More and more steel decks are being used every year due to the economic and performance advantage provided by this type of construction. As the deck provides the positive reinforcing for the slab, conventional wood forming is replaced and temporary shoring can be eliminated.

47/180 Steel Deck



T: 00971 6 5338449 F: 00971 6 533 6673 E: info@TigerPROFILES.com W:www.TigerPROFILES.com
Head Office: Sharjah, Industrial Area 2, P.O.Box 23499, Sharjah—United Arab Emirates

Steel Floor Deck 47/180

Panel Nominal Thickness (mm)	Nominal Weight (kg/m^2)	1xdefl cm^4	Top in Compression			Bottom in Compression		
			1xe cm^4	Sx-Top cm^3	Sx-Bottom cm^3	1xe cm^4	Sx-Top cm^3	Sx-Bottom cm^3
0.50	5.28	20.5	12.83	5.1	6.04	17.12	11.00	5.55
0.60	6.33	24.6	16.14	6.56	7.38	22.46	13.25	7.60
0.70	7.39	28.69	19.65	8.14	8.74	27.07	15.58	9.26
0.80	8.44	32.78	23.33	9.86	10.13	31.76	17.90	10.97
0.90	9.49	36.88	27.24	11.74	11.54	36.20	20.16	12.55
1.00	10.55	40.97	31.43	13.84	12.99	40.51	22.38	14.07
1.20	12.89	52.49	42.78	18.93	16.87	52.4	27.57	18.09

Steel: Permissible Span (mm)

Allowable Uniform Load in kN/M^2													
Panel Thickness (mm)	Span Type	Clear Span											
		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75
0.50	Single	8.47 16.09	5.40 8.24	3.75 4.77	2.76 3.00	2.11 2.01	1.67 1.41	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Double	9.19 38.75	5.88 19.84	4.08 11.48	3.00 7.23	2.30 4.84	1.81 3.40	1.47 2.48	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Triple or More	11.49 30.32	7.35 15.52	5.10 8.98	3.75 5.66	2.87 3.79	2.27 2.66	1.84 1.94	1.52 1.46	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
0.60	Single	10.86 19.31	6.95 9.89	4.83 5.72	3.55 3.60	2.72 2.41	2.15 1.69	1.74 1.24	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Double	12.58 46.50	8.05 23.80	5.59 13.78	4.11 8.68	3.15 5.81	2.49 4.09	2.01 2.98	1.66 2.24	1.40 1.72	0.00 0.00	0.00 0.00	0.00 0.00
	Triple or More	15.73 36.39	10.07 18.63	6.99 10.78	5.14 6.79	3.93 4.55	3.11 3.19	2.52 2.33	2.08 1.75	1.75 1.35	0.00 0.00	0.00 0.00	0.00 0.00
0.70	Single	13.48 22.52	8.63 11.53	5.99 6.67	4.40 4.20	3.37 2.82	2.66 1.98	2.16 1.44	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	Double	15.33 54.22	9.81 27.76	6.81 16.06	5.00 10.12	3.83 6.78	3.03 4.76	2.46 3.47	2.03 2.60	1.70 2.00	1.45 1.58	0.00 0.00	0.00 0.00
	Triple or More	19.17 42.44	12.27 21.73	8.52 12.57	6.26 7.92	4.79 5.31	3.79 3.73	3.07 2.72	2.53 2.04	2.13 1.57	1.82 1.24	0.00 0.00	0.00 0.00

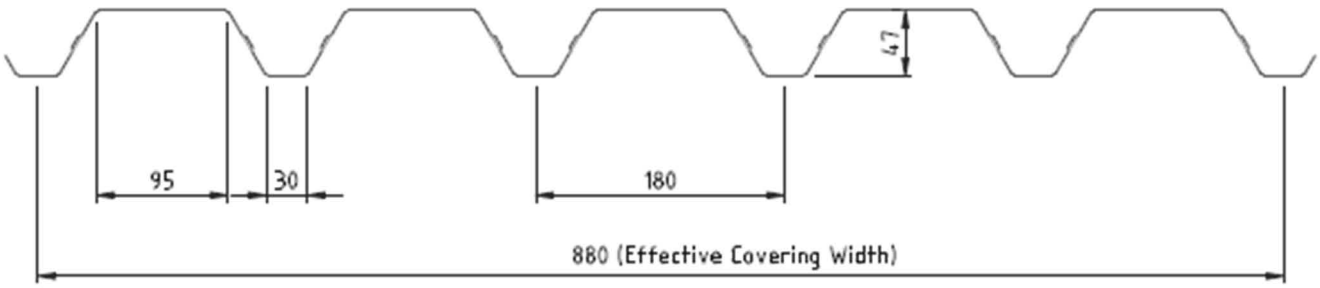
Notes:
1. Top values are based on bending;
2. Bottom values are based on maximum deflection of Span/200;
3. For deflections Span/240, divide values by 1.2

Steel: Permissible Span (mm)

Panel Thickness (mm)	Span Type	Allowable Uniform Load in kN/M² — Clear Span 1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75
0.80	Single	16.33	10.45	7.26	5.33	4.08	3.22	2.61	2.16	0.00	0.00	0.00	0.00
		25.74	13.18	7.63	4.80	3.22	2.26	1.65	1.24	0.00	0.00	0.00	0.00
	Double	18.17	11.63	8.08	5.93	4.54	3.59	2.91	2.40	2.02	1.72	1.48	0.00
		61.96	31.72	18.36	11.56	7.75	5.44	3.97	2.98	2.29	1.80	1.44	0.00
	Triple or More	22.70	14.53	10.09	7.41	5.68	4.48	3.63	3.00	2.52	2.15	0.00	0.00
		48.49	24.83	14.37	9.05	6.06	4.26	3.10	2.33	1.80	1.41	0.00	0.00
0.90	Single	19.44	12.44	8.64	6.35	4.86	3.84	3.11	2.57	0.00	0.00	0.00	0.00
		28.95	14.82	8.58	5.40	3.62	2.54	1.85	1.39	0.00	0.00	0.00	0.00
	Double	20.78	13.30	9.23	6.78	5.20	4.10	3.32	2.75	2.31	1.97	1.70	1.48
		69.70	44.61	30.98	13.00	8.71	6.12	4.46	3.35	2.58	2.03	1.63	1.32
	Triple or More	25.98	16.63	11.55	8.48	6.50	5.13	4.16	3.44	2.89	2.46	2.12	0.00
		54.55	27.93	16.16	10.18	6.82	4.79	3.49	2.62	2.02	1.59	1.27	0.00
1.00	Single	22.92	14.67	10.19	7.48	5.73	4.53	3.67	3.03	2.55	0.00	0.00	0.00
		32.17	16.47	9.53	6.00	4.02	2.82	2.06	1.55	1.19	0.00	0.00	0.00
	Double	23.30	14.91	10.35	7.61	5.83	4.60	3.73	3.08	2.59	2.21	1.90	1.66
		77.43	39.65	22.94	14.45	9.68	6.80	4.96	3.72	2.87	2.26	1.81	1.47
	Triple or More	29.13	18.64	12.95	9.51	7.28	5.75	4.66	3.85	3.24	2.76	2.38	2.07
		60.60	31.03	17.96	11.31	7.58	5.32	3.88	2.91	2.24	1.76	1.41	1.15
1.20	Single	31.35	20.06	13.93	10.24	7.84	6.19	5.01	4.14	3.48	2.97	0.00	0.00
		41.21	21.10	12.21	7.69	5.15	3.62	2.64	1.98	1.53	1.20	0.00	0.00
	Double	29.95	19.17	13.31	9.78	7.49	5.92	4.79	3.96	3.33	2.84	2.44	2.13
		99.21	50.80	29.40	18.51	12.40	8.71	6.35	4.77	3.67	2.89	2.31	1.88
	Triple or More	37.44	23.96	16.64	12.22	9.36	7.40	5.99	4.95	4.16	3.54	3.06	2.66
		77.64	39.75	23.00	14.49	9.70	6.82	4.97	3.73	2.88	2.26	1.81	1.47

Notes:
1. Top values are based on bending;
2. Bottom values are based on maximum deflection of Span/200;
3. For deflections Span/240, divide values by 1.2

47/180 Steel Deck



TigerPROFILES & Insulation—Roofing, Cladding, Insulation Systems & Solutions

TigerPROFILES, the "Roof & Cladding" Company is your source for comprehensive, innovative, sustainable, Roofing, Cladding & Insulation Solution for the civil, military & aviation construction sectors.

TigerPROFILES systems and solutions are certified and/or approved by various authorities as evident below.

TigerPROFILES offerings encompass a range of systems and products that include:

- o T-Seam® metal standing seam systems;
- o K-Span stand-alone systems;
- o PUR/PIR/Rockwool Insulated Systems & Products: (manufactured with ZERO Ozone Depletion Potential (ODP) & ZERO Global Warming Potential (GWP) blowing agents) :
  - ◊ Sandwich panels;
  - ◊ Concealed fix wall panels;
  - ◊ Cold store panels;
  - ◊ Pre-Insulated Partition Panels;
  - ◊ Pre– Insulated Ventilation Ducts.
- o Roof tiles and profiles;
- o Trapezoidal and Sinusoidal Profiles;
- o Z-purlins, C-purlins and C-channels;
- o Dry wall Partitions - studs/tracks/ceiling grids;
- o Floor decking;
- o Flashings and Accessories;
- o Solasteel* Metal Pre-Coating—Eco-Friendly Gold GAIA Award Winning Heat Reflecting Coating
- o Solacoat* Exterior Surface Post-Coating—Eco- Friendly Silver GAIA Award Winning Heat Reflecting Coating

**** Solely available in the Middle East, Asia & Africa through TigerPROFILES and its appointed distributors.***