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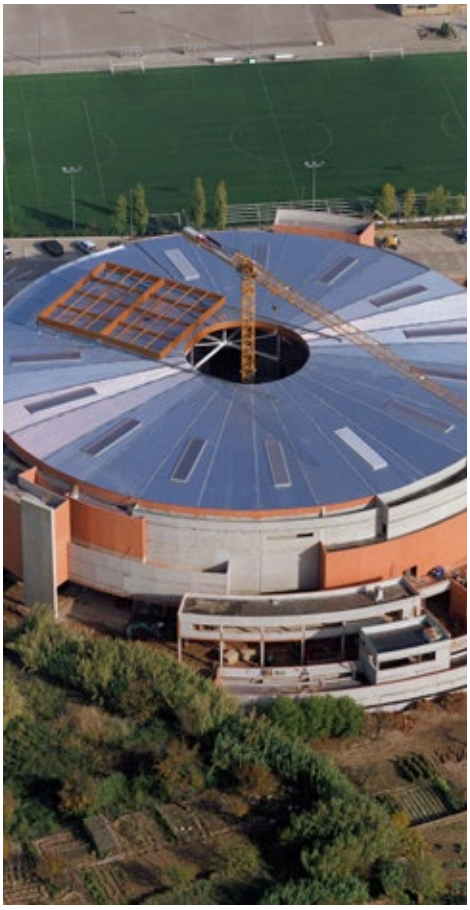
TZ-47

ROOF PROFILED STEEL SHEETING



- High quality, cold-formed trapezoidal profiled steel sheeting, made of certified structural steel.
- Metal roof cladding for industrial, commercial and sports facilities buildings.
- CE marked product according to EN 14782 and EN 1090 standards.
- Useful width with overlap of 1.0 m and manufacturing lenghts up to 14.9m.
- Spans up to 3.0m and loads up to 2,993 daN/m^2 in single span.

CE

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DESCRIPTION AND APPLICATIONS

High-quality cold-formed trapezoidal steel profiled sheeting.

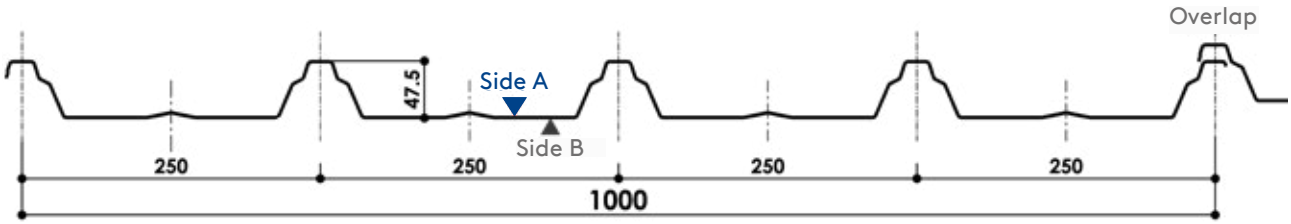
Manufacturing allowance for curved solutions.

Suitable for acoustic control systems, with several possibilities of perforation patterns.

Metallic roof enclosures for industrial, commercial and sports facilities buildings.

Depending on the configuration, spans beween supports up to 3.0 m, and loads up to 2,993 daN/m^2 can be attained in single span.

PRODUCT DATA



Useful width		1,000 mm
Maximum manufacturing lenght		14.9 m (>13.5 m requires special transport)
Steel grade		Standard S220GD (other steel grades available on demand)
Thicknesses		0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2 mm
Coatings	**Standard**	Galvanised Z275 Galvanised & 25 microns lacquered in silicone polyester
	Special	HD, HDS, HDX, PVDF, PET

Steel sheet Certifications

Steel sheet to EN 10346 (galvanised) and to EN 10169 (organic coatings).

TZ-47 Profiled sheet Certifications

CE marking according to EN 14782:2006 and EN 1090-1:2009+A1:2011 standards.

CE

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PROFILED SHEET TECHNICAL DATA

THICKNESS	SELF WEIGHT		SECOND MOMENT OF AREA	RESISTANT MODULUS	BENDING MOMENT
(mm)	(kg/ml)	(kg/m²)	I (cm⁴/m)	Wmin (cm³/m)	Mf (kgf·m)
0.5	4,91	4,91	15,840	4,500	102,15
0.6	5,89	5,89	19,000	5,380	122,13
0.7	6,87	6,87	22,150	6,275	142,44
0.8	7,85	7,85	25,300	7,147	162,24
1.0	9,81	9,81	31,590	8,890	201,80
1.2	11,78	11,78	37,908	10,668	242,16

MAXIMUM ALLOWABLE PRESSURE LOADS (daN/m²)

		DISTANCE BETWEEN SUPPORTS (m)								
thk (mm)	SUPPORTS	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
0.5		1274	652	376	235	156	109	78	58	44
		3070	1573	910	572	382	267	194	144	110
		2415	1237	715	449	300	209	151	113	86
0.6		1534	785	452	283	188	131	94	69	52
		3695	1894	1095	688	460	321	233	174	133
		2906	1489	861	540	361	252	182	136	103
0.7		1782	912	526	329	218	152	109	80	61
		4293	2200	1272	800	534	373	270	202	154
		3377	1730	1000	628	419	292	211	157	120
0.8		2028	1037	598	374	249	173	124	91	69
		4886	2504	1448	910	608	425	308	229	175
		3843	1969	1138	715	477	333	241	179	136
1.0		2515	1286	741	464	308	214	154	113	85
		6058	3105	1795	1128	753	526	381	284	217
		4765	2441	1411	886	591	412	298	222	169
1.2		2993	1531	882	552	366	254	183	135	101
		7211	3696	2137	1343	896	626	454	338	258
		5672	2906	1679	1054	703	491	355	264	201

NOTES:

1 daN/m² ≈ 1 kp/m²

- The values listed in the table are unfactored allowable loads, which should be compared with the sum of characteristic loads (without factoring) in each project.
- Tables calculated for a maximum deflection of L /200, where L is the span (distance between purlins).
- Tables valid for pre-design only. The designer must carry out the structural calculation according to the relevant standards in each country.
- For resistance verification according to EN 1993-1-3, or for other load cases, please contact our technical department. Kingspan | Teczone expressly declines any responsibility derived from the use of these tables.

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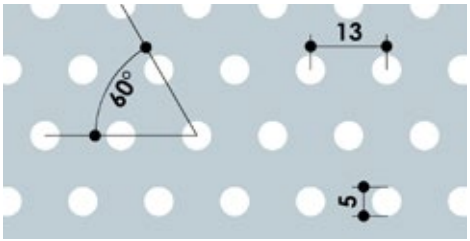
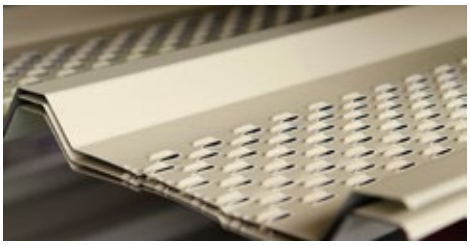
PERFORATIONS FOR ACOUSTIC CONTROL

Uniform perforation, for example type R5T13 pattern, with Ø5mm holes, 13mm between centres, staggered at 60°. Perforated area of 14% of total surface. Absortion coefficient α_w = 0.85 according to EN ISO 354:2004 for a in-situ sandwich system. Usual stock in 0.6mm White 1006. Request delivery term for other possibilities. Other types of uniform perforation are also available.

TZ Pattern, perforated-ripped with a 36% area embedded in the profile lower flange. Represents a reduction of 7% of allowable loads with respect to the unperforated profile.

Absortion coefficient α_w = 0.50 to EN ISO 354:2004 for in-situ sandwich system. Delivery time similar to that of the unperforated profile.





AVAILABLE COATINGS

Kingspan | Teczone has a wide range of high-performance, state-of-the-art coatings, selectable according to the type of installation environment, in order to guarantee the maximum durability of the TZ profiles:

	OUTDOOR ENVIRONMENT								INDOOR ENVIRONMENT			
	RURAL WITHOUT POLLUTION	URBAN / INDUSTRIAL		MARINE			RESISTANCE		NON-AGRESSIVE ENVIRONMENTS		AGGRESSIVE AND/OR VERY HUMID ENVIRON-MENTS	RESISTANCE
		Moderate	Severe	Between 3 - 20 km	< 3km (1)	Mixed	Outdoor Corrossion Category	UV	Low humidity	Medium humidity		Indoor Corrosion Category
Polyester 25µ	☑	☑	!	!	☒	☒	!	!	☑	☑	Ai3(2)	CPI3
HDS 35µ	☑	☑	!	☑	!	!	RC4	RUV4	☑	☑	Ai3	CPI4
PVDF 35µ	☑	☑	!	☑	!	!	RC4	RUV4	☑	☑	Ai3	CPI4
HDX 55µ	☑	☑	☑	☑	☑	!	RC5	RUV4	☑	☑	Ai3	CPI4
PET 50µ	☒	☒	☒	☒	☒	☒	NA	NA	☑	☑	Ai5	CPI5

☑ Suitable coating ☒ Unsuitable coating NA Not applicable ! Check with Teczone

(1) Please contact us for distances <300m.
(2) Check conditions.

Not all coatings are available for all sheet thicknesses and colors. Consult Teczone if you need any coating not included in the table.

QUALITY AND SAFETY

Both steel and its metallic or organic coatings are free from SVHC ("Substances of Very High Concern"), in accordance with the requirements of European regulation REACH.

Our Quality Management (ISO 9001), Environmental Management (ISO 14001) and Occupational Health and Safety (ISO 45001) systems are certified by AENOR and IQNet.

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DTC-014_EN | 23/10/23 | Rev: 4.0