

# TZ-40

# FACADE PROFILED STEEL SHEETING



- High quality, cold-formed trapezoidal profiled steel sheeting, made of certified structural steel.
- Metal facade 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.
- Available with factory-applied condensation control coating in the inner side, which regulates moisture and prevents droplets from the inner side of the sheeting.
- Spans up to 3.0m and loads up to 1,493 daN/m² in single span.









# TZ-40 Facade profiled steel sheeting

#### **DESCRIPTION AND APPLICATIONS**

High-quality cold-formed trapezoidal steel profiled sheeting.

Manufacturing allowance for curved solutions.

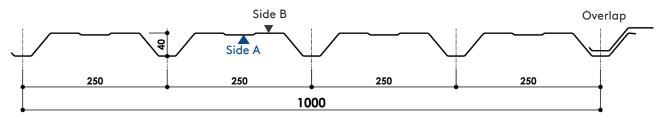
Suitable for acoustic control systems, with several possibilities of perforation patterns.

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

Depending on the configuration, spans beween supports up to 3.0 m, and loads up to 1,493 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 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-40 Profiled sheet Certifications

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





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#### PROFILED SHEET TECHNICAL DATA

THICKNESS	SELFWE	IGHT	SECOND MOMENT OF AREA	RESISTANT MODULUS	BENDING MOMENT	
(mm)	(kg/ml)	(kg/m²)	I (cm⁴/m)	Wmin (cm³/m)	Mf (kgf⋅m)	
0,5	4,90	4,90	11,912	4,218	67,48	
0,6	5,88	5,88	14,558	5,170	82,72	
0,7	6,86	6,86	16,976	6,016	136,56	
0,8	7,85	7,85	19,396	6,860	155,72	
1,0	9,81	9,81	24,228	8,536	193,77	

### MAXIMUM ALLOWABLE PRESSURE LOADS (daN/m²)

### SPAN 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	$\triangle$	645	332	193	122	92	70	54	42	33
	$\triangle$ $\triangle$	1551	797	462	292	196	138	107	87	71
	$\triangle$ $\triangle$ $\triangle$	1220	627	364	230	154	112	90	72	58
	$\triangle$	806	414	240	152	112	85	65	51	40
0,6	$\triangle$ $\triangle$	1937	996	577	364	244	172	131	106	86
	$\triangle$ $\triangle$ $\triangle$	1524	784	455	287	192	138	109	87	70
	$\triangle$	972	500	290	183	133	100	76	59	47
0,7	$\triangle$ $\triangle$	2337	1201	697	440	295	207	156	125	101
	$\triangle$ $\triangle$ $\triangle$	1839	945	548	346	232	164	130	103	83
	$\triangle$	1143	588	341	215	154	115	88	68	53
0,8	$\triangle$ $\triangle$ $\triangle$	2748	1412	819	517	347	244	181	145	117
	$\triangle$ $\triangle$ $\triangle$	2162	1111	645	407	273	192	150	119	95
1,0	$\triangle$	1493	767	445	281	197	146	110	85	67
	$\triangle$ $\triangle$	3588	1844	1070	675	452	318	233	184	148
		2824	1451	842	531	356	250	192	150	120

NOTES:  $1 \text{ daN/m}^2 \approx 1 \text{ kp/m}^2$ 

- 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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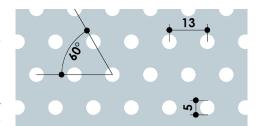
#### PERFORATIONS FOR ACOUSTIC CONTROL

Kingspan | Teczone can supply this profile with uniform perforation, for example type R5T13 pattern, with Ø 5mm holes, 13mm between centres, staggered at 60°. Perforated area of 14% of total surface.

Absortion coefficient  $\alpha_{\rm m}$  = 0.85 according to EN ISO 354:2004 for a insitu sandwich system. Usual stock in 0.6mm White 1006. Request delivery term for other possibilities. Other types of uniform perforation are also

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  $\alpha_{\rm w}$  = 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 quarantee the maximum durability of the TZ profiles:

	OUTDOOR ENVIRONMENT									INDOOR ENVIRONMENT				
	RURAL	URBAN / INDUSTRIAL		MARINE		RESISTANCE		NON-AGRESSIVE ENVIRONMENTS		AGGRESSIVE AND/OR	RESISTANCE			
	WITHOUT	Moderate	Severe	Between 3-20 km	< 3km <sup>(1)</sup>	Mixed	Outdoor Corrossion Category	UV	Low humidity	Medium humidity	VERY HUMID ENVIRON- MENTS	Indoor Corrosion Category		
Polyester 25µ	V	V	!	į	X	×	į.	!	V		Ai3 <sup>(2)</sup>	CPI3		
HDS 35µ	V	V	!	V	ļ	!	RC4	RUV4	V		Ai3	CPI4		
PVDF 35µ	V	V	!	V	ļ	!	RC4	RUV4	V	V	Ai3	CPI4		
HDX 55µ	V	V	V	V	V	!	RC5	RUV4	V	$\overline{\checkmark}$	Ai3	CPI4		
PET 50μ	X	×	×	×	X	X	NA	NA	V	V	Ai5	CPI5		

Suitable coating

Unsuitable coating

! 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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