



# TZ-60

## 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 0.82m and manufacturing lengths up to 12.8m.
- Optimised for large spans and heavy loads.



**TECZONE**

# TZ-60 Roof profiled steel sheeting

## DESCRIPTION AND APPLICATIONS

High-quality cold-formed trapezoidal steel profiled sheeting.

Manufacturing allowance for curved solutions.

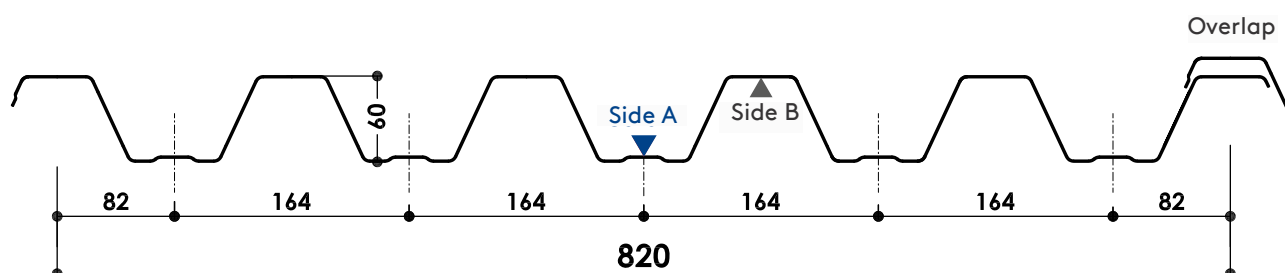
Suitable for acoustic control systems, with Kingspan's R5T13 perforation pattern.

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

Depending on the configuration, spans between supports up to 5.0 m, and loads up to 894 daN/m<sup>2</sup> can be attained in single span.



## PRODUCT DATA



|                              |          |                                                                            |
|------------------------------|----------|----------------------------------------------------------------------------|
| Useful width                 |          | 820 mm                                                                     |
| Maximum manufacturing length |          | 12.8 m                                                                     |
| Steel grade                  |          | Estándar S220GD (other steel grades available on demand)                   |
| Thicknesses                  |          | 0.7 / 0.8 / 1.0 / 1.2 mm                                                   |
| Coatings                     | Standard | Galvanised Z275<br>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-60 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 | SELFWEIGHT |                      | SECOND MOMENT OF AREA  | RESISTANT MODULUS         | BENDING MOMENT |
|-----------|------------|----------------------|------------------------|---------------------------|----------------|
| (mm)      | (kg/ml)    | (kg/m <sup>2</sup> ) | I (cm <sup>4</sup> /m) | Wmin (cm <sup>3</sup> /m) | Mf (kgf·m)     |
| 0.7       | 6.86       | 8.36                 | 43.29                  | 13.70                     | 219            |
| 0.8       | 7.85       | 9.57                 | 51.38                  | 16.74                     | 286            |
| 1.0       | 9.81       | 11.96                | 67.23                  | 22.26                     | 356            |
| 1.2       | 11.78      | 14.36                | 83.44                  | 26.92                     | 431            |

## MAXIMUM ALLOWABLE PRESSURE LOADS (daN/m<sup>2</sup>)

|          |                                                                                     | SPAN BETWEEN SUPPORTS (m) |      |      |      |      |      |      |      |      |      |      |      |      |
|----------|-------------------------------------------------------------------------------------|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| thk (mm) | SUPPORTS                                                                            | 2.00                      | 2.25 | 2.50 | 2.75 | 3.00 | 3.25 | 3.50 | 3.75 | 4.00 | 4.25 | 4.50 | 4.75 | 5.00 |
| 0.7      |  | 478                       | 345  | 255  | 193  | 149  | 117  | 92   | 74   | 60   | 49   | 40   | 33   | 27   |
|          |  | 1160                      | 812  | 590  | 445  | 350  | 278  | 225  | 183  | 151  | 126  | 105  | 89   | 75   |
|          |  | 911                       | 637  | 464  | 357  | 279  | 221  | 177  | 144  | 118  | 98   | 82   | 69   | 58   |
| 0.8      |  | 559                       | 400  | 295  | 222  | 170  | 133  | 106  | 85   | 68   | 56   | 46   | 38   | 31   |
|          |  | 1357                      | 951  | 690  | 518  | 405  | 322  | 259  | 210  | 173  | 143  | 120  | 101  | 86   |
|          |  | 1066                      | 746  | 541  | 414  | 322  | 254  | 204  | 165  | 135  | 112  | 93   | 78   | 66   |
| 1.0      |  | 725                       | 512  | 374  | 280  | 214  | 167  | 132  | 106  | 85   | 69   | 57   | 47   | 39   |
|          |  | 1760                      | 1233 | 896  | 670  | 519  | 409  | 328  | 265  | 218  | 180  | 150  | 127  | 107  |
|          |  | 1383                      | 968  | 702  | 530  | 410  | 322  | 257  | 207  | 169  | 140  | 117  | 98   | 82   |
| 1.2      |  | 894                       | 626  | 454  | 339  | 258  | 200  | 158  | 126  | 102  | 83   | 68   | 56   | 46   |
|          |  | 2168                      | 1519 | 1104 | 825  | 635  | 498  | 397  | 320  | 262  | 216  | 180  | 151  | 128  |
|          |  | 1703                      | 1192 | 865  | 649  | 498  | 390  | 310  | 250  | 203  | 167  | 139  | 117  | 98   |

### NOTES:

1 daN/m<sup>2</sup> ≈ 1 kp/m<sup>2</sup>

- 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.



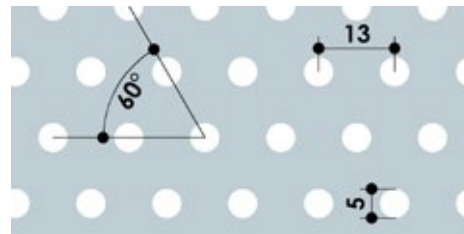
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## PERFORATIONS FOR ACOUSTIC CONTROL

Kingspan | Teczone can supply this profile with **uniform perforation**, for example type R5T13 pattern, with Ø5mm holes, 13mm between centres, staggered at 60°. Perforated area of 14% of total surface.

Absorption coefficient  $\alpha_w = 0.85$  according to EN ISO 354:2004 for a in-situ sandwich system.

Other types of uniform perforation are also available.



## 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-AGGRESSIVE ENVIRONMENTS |                 | AGGRESSIVE AND/OR VERY HUMID ENVIRONMENTS | RESISTANCE |
|               |                         | Moderate           | Severe | Between 3 - 20 km | < 3 km <sup>(1)</sup> | Mixed | Outdoor Corrosion Category | UV   | Low humidity                | Medium humidity |                                           |            |
| Polyester 25μ | ✓                       | ✓                  | !      | !                 | ✗                     | ✗     | !                          | !    | ✓                           | ✓               | Ai3 <sup>(2)</sup>                        | 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 Systems (ISO 9001), Environmental Management (ISO 14001) and Occupational Health and Safety (ISO 45001) are certified by AENOR and IQNet.

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