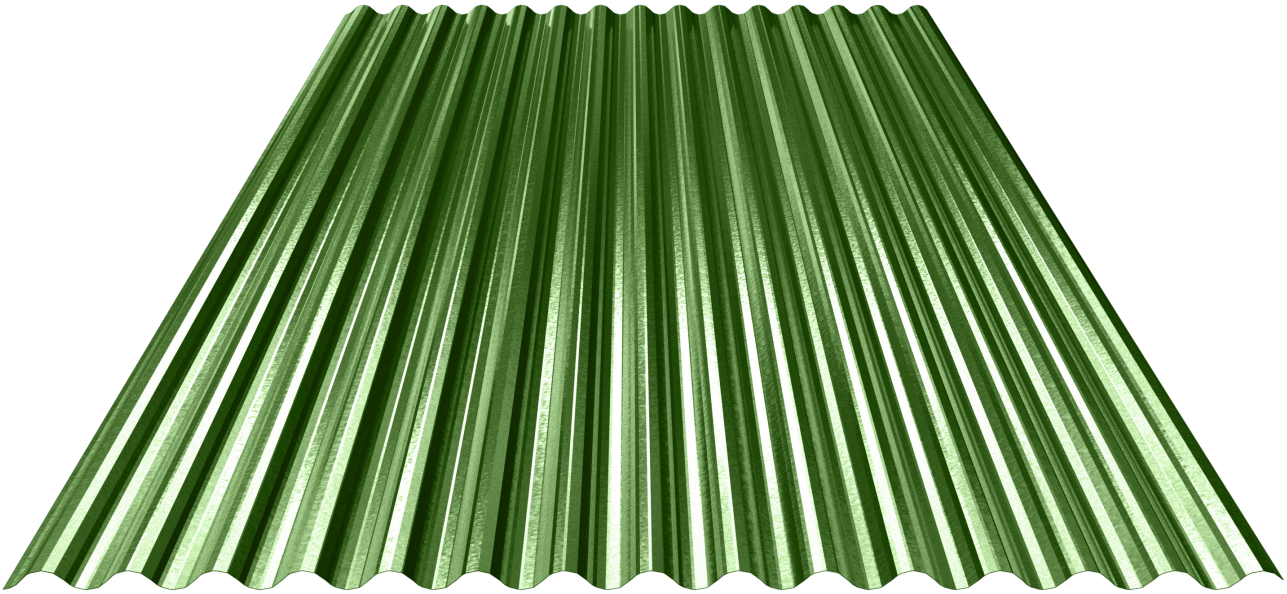
# MetaLite COV Ripl

Self-supporting metal sheets with a 19/76 corrugated profile, suitable for roofing applications on all types of buildings

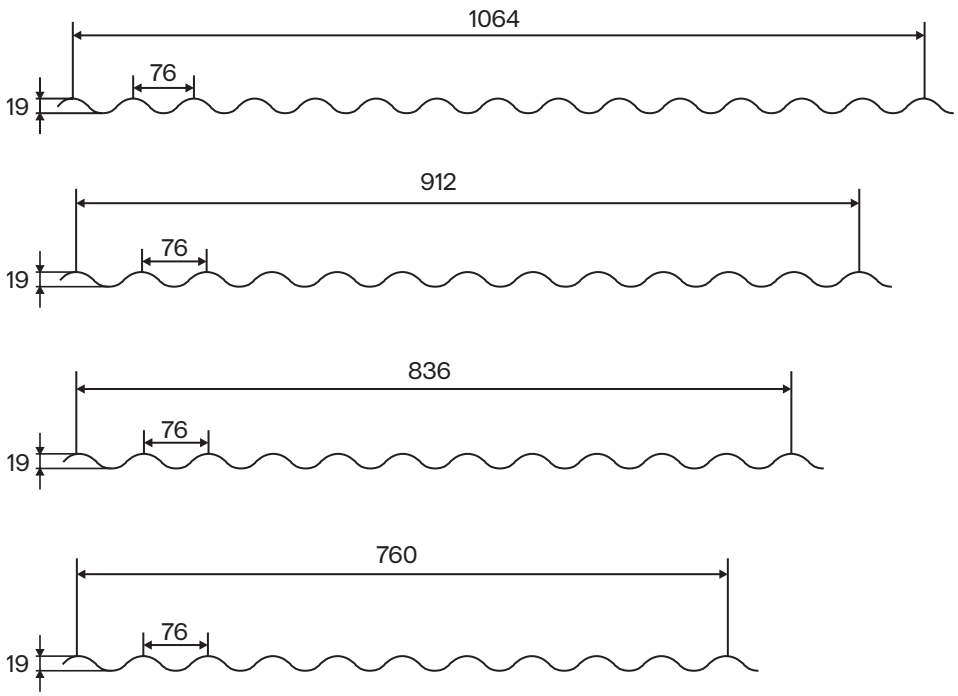


## Available in

Effective cover width 760mm, 836mm, 912mm and 1064mm

Length up to 12 m, depending on project requirements

The corrugated profile, due to its flexibility, can be curved easily, while its side joint provides very good watertightness.



# Technical Specifications

| Effective cover width [mm] | Developed width [mm] | Steel weight [kg/m] | Aluminium weight / width [kg/m] |
|---|---|---|---|
| 1064 | 1250 | 4,91 | 1,72 |
| 912 | 1100 | 4,32 | 1,51 |
| 836 | 1000 | 3,93 | 1,38 |
| 760 | 920 | 3,61 | 1,27 |

The weight per linear metre was calculated based on:

- Sheet thickness 0,50 mm
- Steel density 7850 kg/m$^3$
- Aluminium density 2750 kg/m$^3$

## Dimensional Tolerances

(Standards EN 14782 and EN 508)

| | | |
|---|---|---|
| **Sheet thickness** | t | Steel Standard: EN 10143<br>Aluminum Standard: EN 485-4 |
| **Profile depth** | h | ± 1,0 mm, h ≤ 50 mm<br>± 1,5 mm, 50 < h ≤ 100 mm<br>± 2,0 mm, h > 100 mm |
| **Step of the profile** | p | ± 3,0 mm |
| **Effective cover width** | w1,2,3 | ± 0.01*w |
| **Inner radius** | r | ± 10% |
| **Deviation from orthogonality** | S | S ≤ 0.005*w |
| **Leaf length** | l | -5 mm ~ +10 mm, L ≤ 3000 mm<br>-5 mm ~ +20 mm, L > 3000 mm |
| **Side overlap deviation** | D | ± 2.0 mm, l < 500 mm |

Steel sheet with galvanized protection, thickness > 0,6 mm.
Aluminum sheet, thickness > 0,7mm.
Stainless steel sheet, thickness 0,7mm.

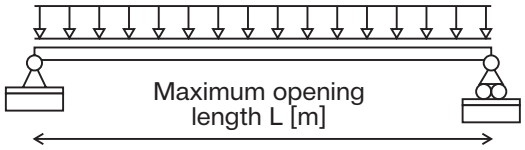
| Nominal thickness | mm | 0,50 | 0,60 | 0,80 | AL 0.60 | AL 0.80 |
|---|---|---|---|---|---|---|
| **Cross-section weight** | Kg/m² | 4,73 | 5,68 | 7,57 | 1,99 | 2,65 |
| **Moment of inertia Ix** | cm⁴ /m | 2,88 | 3,91 | 5,99 | 3,91 | 5,99 |
| **Lower leakage limit** | N/mm² | 275 | EN 10346:2013 | | 150 | EN 508-2 |

(concerns usable width 912mm)

# Max load in span Load bearing capacity (kg/m²)

- Single-span structural system
- Maximum service load Q in kN/m² for positive bending moment, negative bending moment, and vertical shear
- Steel grade DX51D+Z
- Maximum span length L [m]
- Width of simply supported bearing 50mm

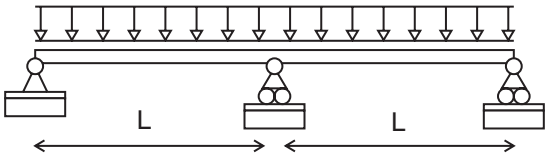
## Single Span Load Table




| PANEL THICKNESS | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 |
|---|---|---|---|---|---|---|---|---|---|
| 0,50 | 1,96 | 1,06 | 0,61 | 0,41 | 0,29 | 0,20 | 0,14 | 0,10 | 0,06 |
| 0,60 | 2,60 | 1,40 | 0,81 | 0,52 | 0,35 | 0,25 | 0,18 | 0,12 | 0,08 |
| 0,80 | 3,69 | 1,99 | 1,15 | 0,70 | 0,47 | 0,33 | 0,23 | 0,16 | 0,10 |
| AL 0.60 | 0,69 | 0,36 | 0,21 | 0,13 | 0,09 | 0,06 | 0,04 | 0,03 | 0,02 |
| AL 0.80 | 0,94 | 0,48 | 0,28 | 0,17 | 0,12 | 0,08 | 0,06 | 0,04 | 0,02 |

- Single-span structural system
- Maximum service load Q in kN/m² for positive bending moment, negative bending moment, and vertical shear
- Steel grade DX51D+Z
- Maximum span length L [m]
- Width of simply supported bearing 50mm

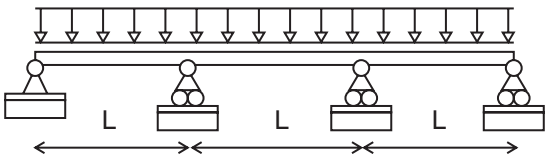
## Multi Span Load Table




| PANEL THICKNESS | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 |
|---|---|---|---|---|---|---|---|---|---|
| 0,50 | 2,28 | 1,44 | 1,00 | 0,74 | 0,56 | 0,44 | 0,35 | 0,26 | 0,19 |
| 0,60 | 2,79 | 1,76 | 1,22 | 0,90 | 0,69 | 0,54 | 0,43 | 0,32 | 0,23 |
| 0,80 | 3,81 | 2,41 | 1,68 | 1,23 | 0,94 | 0,74 | 0,59 | 0,43 | 0,31 |
| AL 0.60 | 0,90 | 0,47 | 0,27 | 0,17 | 0,11 | 0,08 | 0,06 | 0,04 | 0,02 |
| AL 0.80 | 1,22 | 0,63 | 0,36 | 0,23 | 0,15 | 0,11 | 0,08 | 0,05 | 0,03 |

- Single-span structural system
- Maximum service load Q in kN/m² for positive bending moment, negative bending moment, and vertical shear
- Steel grade DX51D+Z
- Maximum span length L [m]
- Width of simply supported bearing 50mm

## Threes & Openings Table




| PANEL THICKNESS | 1,00 | 1,25 | 1,50 | 1,75 | 2,00 | 2,25 | 2,50 | 2,75 | 3,00 |
|---|---|---|---|---|---|---|---|---|---|
| 0,50 | 2,80 | 1,78 | 1,24 | 0,92 | 0,68 | 0,53 | 0,42 | 0,39 | 0,22 |
| 0,60 | 3,43 | 2,18 | 1,52 | 1,12 | 0,83 | 0,65 | 0,51 | 0,47 | 0,27 |
| 0,80 | 4,69 | 2,97 | 2,08 | 1,53 | 1,14 | 0,89 | 0,70 | 0,63 | 0,36 |
| AL 0.60 | 1,17 | 0,61 | 0,35 | 0,22 | 0,15 | 0,10 | 0,07 | 0,05 | 0,03 |
| AL 0.80 | 1,58 | 0,82 | 0,47 | 0,30 | 0,20 | 0,14 | 0,10 | 0,06 | 0,04 |

Ultimate limit state according to Eurocode 3 (Standards EN 1993-1-3 and EN 1993-1-5).
For the serviceability limit state, a safety factor of G (permanent loads) + Q (variable loads) = 1.00 is adopted.
The allowable deflection for each span is defined as less than L/200 for G+Q and L/250 for Q only, where L is the span length.
For the ultimate limit state, a safety factor S = 1.1 is adopted for a load combination equal to 1.35 G + 1.50.