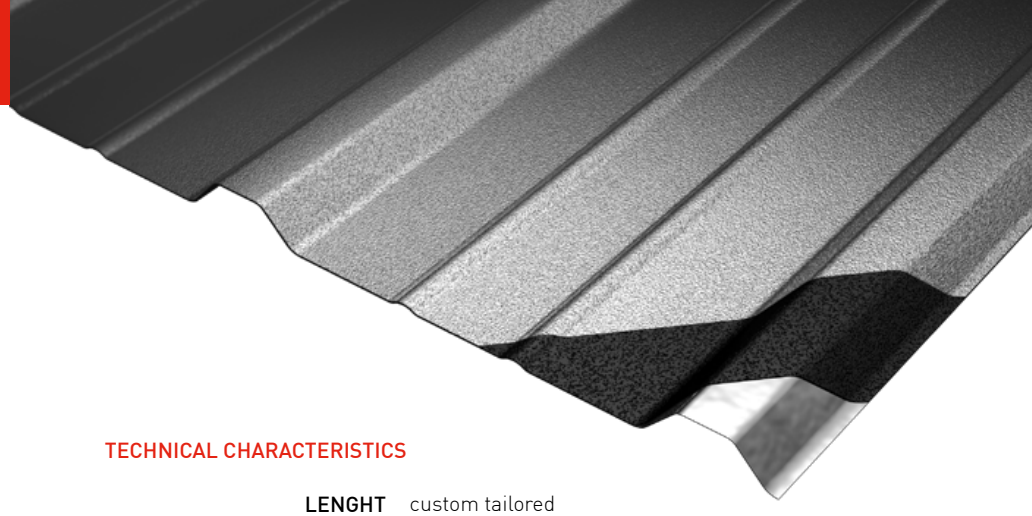
Coverib 1000

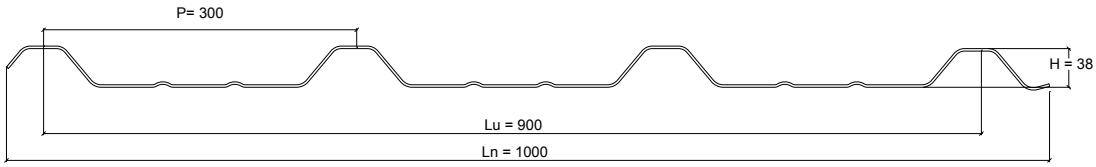


TECHNICAL CHARACTERISTICS

LENGHT	custom tailored
NOMINAL LENGHT (Ln)	1000 mm
COVER WIDHT (Lu) **PROFILE**	900 mm
(H)	38 mm
PITCH (P)	300 mm
AVERAGE TOTAL THICKNESS	2,4 mm
STEEL THICKNESS	0,50 mm - 0,60 mm
MASS	7,700 kg/ m^2 steel thickness 0,50 8,500 kg/ m^2 steel thickness 0,60

TOLERANCES

on lenght + 20 - 5 mm;
cover widht (Lu) +/- 5 mm
average total thickness
and mass +/- 10%



PRODUCT DESCRIPTION

Multilayer protected sheet with trapezoidal profile, CE marked according to UNI EN 14782. Appendix A: complies with UNI EN 508-1 Appendix B: consisting of a structural galvanized steel sheet (EN 10346) with a thickness of 0,60 mm (ie mm 0,50) protected in the upper face by an anticorrosive and soundproofing thermoplastic coating (about 1.5 mm thick) and by a natural aluminum foil (or pre-painted aluminum), and in the lower face by a primer and a natural aluminum foil (or prepainted aluminum).
The external layers wrap the side edges of the sheets along the entire length to guarantee their full protection. To ensure the characteristics stability performances over time, the protection with anticorrosive and soundproofing function, has a thickness of about 1.5 mm and it is positioned on the extrados of the sheet.

The cover element ensures the following performance requirements:

Concentrated loads resistance	Steel thickness 0,5: 1,2 kN span 1,50 m Steel thickness 0,6: 1,2 kN span 1,70 m (EN 14782 Appendix B)
Reaction to fire:	Class B-s1, d0 (UNI EN 13501-1; EN 13823; EN ISO 11925-2)
Performances to external fire:	Class BRoof T3 (UNI EN 13501-5; UNI CEN/TS 1187)
Durability - Salt spray resistance:	4000 hours (UNI EN 14782 – Appendix A; ISO 9227)
Durability - Humidity resistance:	3000 hours (UNI EN 14782 – Appendix A; EN ISO 6270-1)
Durability - SO2 resistance:	45 cycles (UNI EN 14782 – Appendix A; EN ISO 6988)
Sound insulation:	28 dB (UNI EN ISO 140-3)
Sound deadening of noise generated by driving rain:	ISTEDIL cert. N°1302/202-G 1302/202-C 8,41 times higher than a mm 0,7 mm thick aluminium sheet 4,17 times higher than a sandwich panel with 40 mm insulation 52,3 dB UNI EN ISO 140-18
Solar Reflectance Index (SRI):	Natural aluminium surfacing (**N**)107%; Grey – Off White RAL 9002 (**W**) 73,0%; Terracotta RAL 8004 (**T**) 41,1%; Grey RAL 7023 (**GR**) 42,6%; (ASTM E1980-11).
Summer thermal transmittance:	1,07 W/m2K (ISO 6946) with natural aluminium lower surfacing

AVAILABLE FINISHING

GR - Grey RAL 7023, **W** – Off White RAL 9002, **N** - Natural Alluminium, **T** - Terracotta RAL 8004.

GR W N T

PERFORMANCES AND QUALITY GUARANTEED

Coverib 1000

MECHANICAL RESISTANCE TO DISTRIBUTED LOADS

Allowable spans L in function of distributed loads P and of the static scheme.

STEEL THICKNESS	J cm⁴/m	W ⁺ min. cm³/m	W ⁻ min cm³/m
0,50 mm	10,67	2,59	3,18
0,60 mm	12,95	3,40	4,13

J = Moment of inertia
W ⁺ min. = Flexural resistance module for positive moments
W ⁻ min. = Flexural resistance module for negative moments

MECHANICAL RESISTANCE

δ max $\leq$ 1/200 L (total load) δ_2 max $\leq$ 1/250 L (incidental load only) $f_y \geq$ 2.500 daN/cm² (yield strength)) $M_{c,Rd} = M_{el,Rd} = W_{el} f_{yb} / \gamma_{M0}$

Geometric and static properties of the profiles have been calculated according to EN 1993-1-3, EN 1993-1-5, Italian Min. Decree of 14.01.2008

STATIC SCHEME: ONE SPAN

M max +	(p+q) l²
M min -	=
f max (q)	5/384 q l⁴/EI
f max (p+q)	5/384 (p+q) l⁴/EI

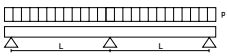
SNOW OVERLOAD - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	1,93	1,85	1,79	1,68	1,60	1,53	1,47	1,40	1,33	1,28	1,23	1,19	1,15	1,11	1,08	1,05
0,60 mm	L = m	2,09	2,01	1,94	1,83	1,74	1,66	1,60	1,54	1,49	1,45	1,40	1,35	1,31	1,27	1,23	1,19

UPLIFT WIND - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	1,79	1,63	1,51	1,42	1,35	1,29	1,24	1,20	1,16	1,13	1,10	1,07	1,05	1,02	0,99	0,96
0,60 mm	L = m	1,94	1,77	1,64	1,54	1,47	1,40	1,35	1,30	1,26	1,22	1,19	1,16	1,14	1,11	1,09	1,07

STATIC SCHEME: TWO SPAN



M max +	1/14 (p+q) l²
M min -	1/8 (p+q) l²
f max (q)	2,07/384 q l⁴/EI
f max (p+q)	2,07/384 (p+q) l⁴/EI

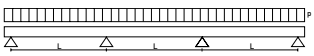
SNOW OVERLOAD - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	1,95	1,84	1,75	1,61	1,50	1,40	1,33	1,26	1,20	1,15	1,11	1,07	1,04	1,00	0,97	0,95
0,60 mm	L = m	2,22	2,10	1,00	1,84	1,71	1,61	1,52	1,44	1,38	1,32	1,27	1,23	1,19	1,15	1,11	1,08

UPLIFT WIND - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	2,40	2,18	2,03	1,88	1,73	1,62	1,52	1,44	1,37	1,31	1,26	1,21	1,17	1,13	1,10	0,96
0,60 mm	L = m	2,61	2,37	2,20	2,07	1,97	1,84	1,73	1,64	1,56	1,50	1,44	1,38	1,34	1,29	1,25	1,10

STATIC SCHEME: THREE SPAN



M max +	1/12,5 (p+q) l²
M min -	1/10 (p+q) l²
f max (q)	2,53/384 q l⁴/EI
f max (p+q)	2,53/384 (p+q) l⁴/EI

SNOW OVERLOAD - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	2,18	2,06	1,96	1,80	1,67	1,57	1,48	1,41	1,35	1,29	1,24	1,20	1,16	1,12	1,09	1,06
0,60 mm	L = m	2,48	2,35	2,24	2,06	1,91	1,80	1,70	1,61	1,54	1,48	1,42	1,37	1,32	1,28	1,25	1,21

UPLIFT WIND - P (daN/m²)

steel thickness		60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360
0,50 mm	L = m	2,25	2,04	1,90	1,78	1,69	1,62	1,56	1,50	1,46	1,42	1,38	1,34	1,31	1,27	1,23	1,19
0,60 mm	L = m	2,44	2,22	2,06	1,94	1,84	1,76	1,69	1,63	1,58	1,54	1,50	1,46	1,43	1,40	1,37	1,34

AVAILABLE PROCESSES

FOLDED CURVED