

RIVERGRIP

METAL COVERING SHEET FOR SLOPED ROOFS



 **ISCOM SPA**
METAL COVERING SOLUTIONS

Via Belvedere,78 - 37026 Pescantina (VR) ITALIA
Tel. +39 045 773 21 77 - Fax +39 045 7732970
www.iscom.it - iscom@iscom.it

RIVERGRIP is the standing seam metal covering panel for sloped roofs. Any details has been optimized to its own function. The system is characterized by ease of installation, no seals, no gaskets, no through perforations. RIVERGRIP technical properties put it to the top of range, guaranteeing a high reliability.



RIVERGRIP system:

1 HIGH WATERTIGHTNESS

- High capacity hydraulic section which makes easy the water drainage even at low slopes (3-5%)
- Ribs overlap made by cone-shaped system

2 PERFORATION-LESS LOCKING SYSTEM

Thanks to the locking system made by reinforced polyamide brackets, through fixation of the sheets is eliminated, thus ensuring RIVERGRIP® system full integrity.

3 DURABILITY

Aluminium, copper or stainless steel sheets are unchangeable in time, have a high durability and offer excellent protection against the environment (acid rains, industrial pollution, etc.)
The choice of such valuable metals is the warranty for system safety and reliability.

4 WIND SUCTION LOAD RESISTANCE

In case of strong winds (uplift pressure) RIVERGRIP® withstands pressures to over 530 N/sqm (test carried out on aluminium sheets thickness mm 0.8 – span 1000mm).

5 – EASY INSTALLATION

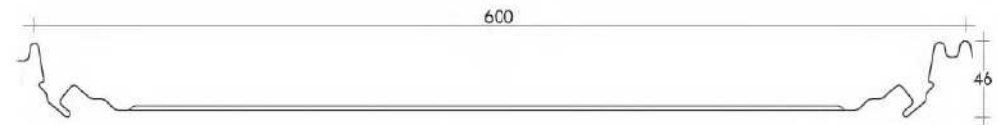
Fast, mark out free, and also easy for non skilled staff

Metal Roofing is now a part of the most crucial breakthroughs for modern architectural trends

Thanks to its essential shape, aesthetic, constructive economies and outstanding technical properties, RIVERGRIP® is the perfect balance between technology and appearance.

RIVERGRIP® is a concealed fixing standing seam roofing system, worldwide patented by ISCOM. It was born as the right solution for sloped roofs, but its own flexibility makes it suitable for several uses. Metal sheets, produced in customized lengths, are locked together by a snap mechanical joint, with no need for specialist installation machines.

RIVERGRIP® ensures the full roof watertightness without any seal or gasket. It guarantees high reliability in any condition (wind, snow or hail), in addition to its full walkability.



EASE OF INSTALLATION

The system is characterized by an exceptional ease of installation, sealants, gaskets or through perforations-free. Fasten system is made by reinforced polyamide brackets to be placed along each spacer. They allow free thermal movement preventing in the same time thermal bridges or electro corrosion between RIVERGRIP® and the below structure.

The system is installed using simple foot pressure onto the purpose designed polyamide bracket fixed to the spacer by two screws.



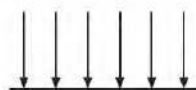
RIVERGRIP® sheet installation



LOAD TABLE

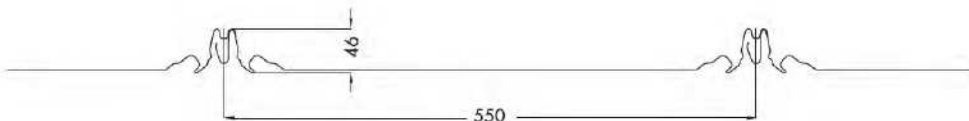
		DISTRIBUTED LOAD KN/m ²					
FREE SPAN (cm)		100	120	140	160	180	
MILL FINISH ALUMINIUM alloy 5754	thick ness (mm)	0,7	6,98	4,04	2,96	1,78	1,25
		0,8	7,87	4,56	3,34	2,00	1,41
		1,0	9,77	5,65	4,15	2,49	1,75
PRE-PAINTED ALUMINIUM alloy 5754	thick ness (mm)	0,7	6,78	3,92	2,88	1,73	1,21
		0,8	7,65	4,43	2,25	1,95	1,37
		1,0	9,49	5,49	4,03	2,41	1,70
COPPER	thick ness (mm)	0,6	9,53	5,52	4,05	2,43	1,70
		0,7	11,97	6,92	5,08	3,04	2,14
		0,8	13,50	7,81	5,73	3,43	2,41
STAINLESS STEEL	thick ness (mm)	0,5	6,02	4,18	3,07	2,35	1,86
		0,6	7,20	5,00	3,67	2,81	2,22
		0,7	8,40	5,83	4,28	3,28	2,59
PRE-PAINTED GALVANIZED STEEL	thick ness (mm)	0,5	5,49	3,82	2,80	2,15	1,70
		0,6	6,57	4,56	3,35	2,57	2,03
		0,7	7,67	5,32	3,91	3,00	2,37
ZINC/TITANIUM ALLOY	thick ness (mm)	0,8	6,30	4,37	3,21	2,46	1,94
		1,0	7,77	5,40	3,97	3,04	2,40

Test Method



Factor of safety = 1,5

- fully walkable
- walkable with care
- not walkably: rigid support needed



RIVERGRIP METALS

The high RIVERGRIP® demanded performance has taken to the necessary choice of long-life and strong environment-against (such as acid rains, industrial pollution, etc.) materials. Aluminium, copper and stainless steel are the system safety and reliability warranty, showing up its structural performances.

GALVANIC BEHAVIOURS

As everybody knows, it is advisable to avoid contacts between different metals in order to prevent electrochemical corrosions (galvanic couple). With the RIVERGRIP® system, stainless steel accessories can be used for elements in aluminium or copper without any compatibility problem between different metals.

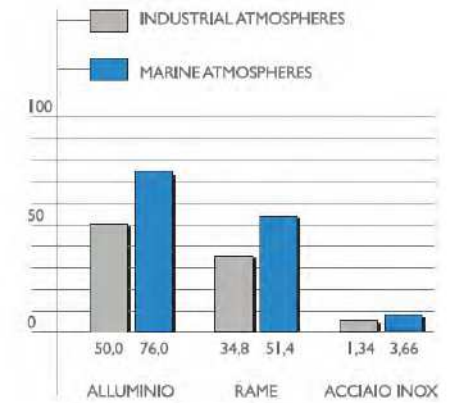
DIFFERENCE BETWEEN ALLOY 5000 AND ALLOY 3000

Aluminium alloy 5754 used for RIVERGRIP® has got mechanical and chemical characteristics far above the normal alloys 3000 used generally for metal roofing.

The use of alloy 5754 is advised in the UNI 10372 norm, related to metal roofing design, for the use in marine as well as in industrial environments, rather than other alloys. The high hardening degree (H18), together with other features of the alloy 5754, with high magnesium content, used for RIVERGRIP® system, represent the right choice to have a light and resistant roof covering

THICKNESS LOSS IN MICRONS

IN 20 YEARS WEATHERING



MATERIAL ALLOY	ALUMINIUM Alloy 5754 H18	COPPER Cu-DHP UNI 5649 n/w	TITAN ZINC	STAINLESS STEEL UNI x 5 Cr-Ni 18 10-AISI 304	GALVANIZED STEEL
DENSITY g/cm ³	2,72	8,9	7,2	8,06	8,06
MELTING POINT °C	650 ~	1080 ~	418	1450 ~	1450 ~
COEFFICIENT OF EXPANSION mm/m°C	0,0240	0,0173	0,0220	0,0141	0,0141
ELASTIC MODULUS kg f/mm ²	6500	12000/13500	8000	19700	19700
ELOGATION%	5 ~	2 ~	40 ~	40 ~	40 ~
TENSILE STRENGTH N/mm ²	300 ~	400 ~	210	550/700	550/700
BRINNEL HARDNESS HB	90	120	40	150	150

COLOURS AND FINISHING

The RIVERGRIP® system offers a wide range of colours and finishings as also texturized in copper-like or zinc-like coatings. The charts of available colors are reported as follows. Polyester, PVDF and polyamid paint can be offered in one or more layers. According to the metals used different finishings are available and some of them can add valuable aesthetic features. Worth mentioning is the embossing, which is very useful on natural aluminum to diminish the reflection of light and consequent glares (airports or buildings in the vicinity of roads and highways). For particular situations, perforated material can be used (shadings or acoustically insulated walls). Aluminum can be with various finishing for very valuable elements. Copper may be pre-oxidized, in various finishing ranging green to dark brown. Zinc is always pre-oxidized, but it may be supplied either in dark or light shade.



BASIC RANGE (GLOSS 20/30)

Dark brown
(Testa di moro)
RAL n.d.



Pale green
RAL 6021
RGB 133 166 122



Grey white
RAL 9002
RGB 240 237 230



SILVER RANGE (GLOSS 20)

White aluminium (Silver)
RAL 9006



TREND RANGE (GLOSS 20/50)

Oxide red
RAL 3009
RGB 94 33 33



Pastel blue
RAL 5024
RGB 87 140 171



Anthracite grey
RAL 7016
RGB 38 46 56

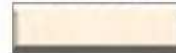


Dusty grey
RAL 7037
RGB 122 125 128



EXCEL RANGE (GLOSS 40/50)

Oyster white
RAL 1013
RGB 255 245 227



Light ivory
RAL 1015
RGB 252 235 204



Zinc yellow
RAL 1018
RGB 255 214 77



Rape yellow
RAL 1021
RGB 252 189 31



Melon yellow
RAL 1028
RGB 255 140 26



Red orange
RAL 2001
RGB 186 46 33



Gray blue
RAL 5008
RGB 26 41 56



Steel blue
RAL 5011
RGB 0 43 112



Light blue
RAL 5012
RGB 41 115 186



Sky blue
RAL 5015
RGB 23 97 171



Night blue
RAL 5022
RGB 0 8 79



Distant blue
RAL 5023
RGB 46 82 143



Leaf green
RAL 6002
RGB 38 87 33



Blue green
RAL 6004
RGB 13 59 46



Moss green
RAL 6005
RGB 10 56 31



May green
RAL 6018
RGB 79 168 51



Chrome green
RAL 6020
RGB 38 56 41



Opal green
RAL 6026
RGB 10 92 51



Mint green
RAL 6026
RGB 18 120 38



Slate grey
RAL 7015
RGB 61 66 82



Pebble grey
RAL 7032
RGB 189 186 171



Light grey
RAL 7035
RGB 212 217 219



Platinum grey
RAL 7036
RGB 158 150 156



Window grey
RAL 7040
RGB 158 163 176



Traffic grey A
RAL 7042
RGB 143 150 153



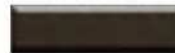
Telegrey 4
RAL 7047
RGB 217 214 219



Copper brown
RAL 8004
RGB 133 56 43



Sepia brown
RAL 8014
RGB 56 38 28



Grey brown
RAL 8019
RGB 40 38 41



Cream
RAL 9001
RGB 252 252 240



Pure white
RAL 9010
RGB 250 255 255



Graphite black
RAL 9011
RGB 13 18 26



Traffic white
RAL 9016
RGB 252 255 255



Papirus white
RAL 9018
RGB 219 227 222

