RAIN MONO

THE ECONOMICAL COVERING PROTECTING FROM CLIMATE EVENTS

RAIN MONO by **SILEX** has been designed as an extremely ***un-expensive*** building element to guarantee ***acoustic insulation*** performances in terms of ***thermal insulation*** and as a proper answer to rainfalls.

Rain Mono by Silex is simply a more economic version of RAIN panel, indicated for roofing with a minimum slope of 7% and with reduced loads.

The internal metal sheet of Rain Mono is substituted by a flexible material, for this reason we dissuade to use this panel in a roof where the inner part is visible as it is not possible to guarantee an aesthetic perfection of the inner face

Rain Mono is suggested if the panels are laid on boards or bases, otherwise if the footholds are almost continuous.

The internal finishing of Rain Mono can be made with an embossed centesimal aluminium coating in a natural colour or in a varnished white (under request), in paper-felt or with a PVC coating.

The several thicknesses of metal sheets used for the external surface create the weight-bearing features of the panel itself which can be realized in galvanized steel, stainless steel, aluminium and other metals. A wide range of painting systems and finishes can be adopted on the panel allowing to reach different aesthetic solutions.

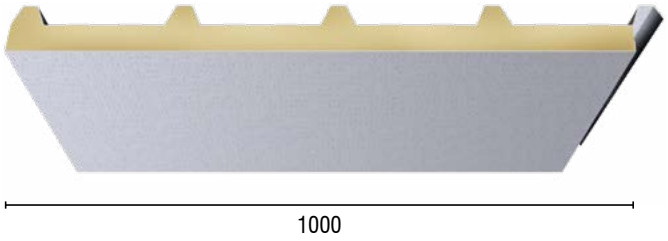
The wide range of polyurethane thicknesses, PUR or PIR, ensures the achievement of important insulating results, with very low certified values of thermal transmittance.

The panel is also available in 10 mm thickness. Besides a minimum thermal insulation performance it also offers anti-condensation and anti-rumble features which soften the noise of rain.

RAIN MONO

Useful width
1000 mm

MAXIMUM LENGTH
13500 mm



THICKNESSES AVAIBLE

10 20 30 40 50 60 80 100 120 150

EXTERNAL METAL SHEETS AVAILABLE

Silex panels can be produced with the following metal sheets: galvanized steel, alu-zinc steel, stainless steel, aluminium, copper and other metal sheets. The use of aluminium and copper sheets needs more attention during the installation of the panels because of the high coefficient of thermal expansion typical of these kind of metals.

Metal sheets supplied by Silex are produced by primary steelworks and are painted with the coil coating method, using a coating cycle homologated by Silex with the purpose of guaranteeing the durability of panels, fit for the purpose of use, and of the coating product used, which can be made of basic or high durability polyester, polyurethane, polyamide, plastisol or PVDF.

Silex offers some standard colours during his coating cycles with the purpose of offering and adequate service to its customers. Special colours can be made under request.

PUR INSULATION

Made of polyurethane resins (P.U.R.) , free from CFC and HCFC , approximate density 35-40 kg/m³ and in any case as indicated in the EU conformity declaration and laboratory tests.

Thermal conductivity coefficient at 10° C degrees (UNI EN 12667) : 0,020-0,023 W/mk

PIR INSULATION

Made of polyisocyanurate free from CFC and HCFC, approximate density 35-40 kg/m³ and in any case as indicated in the EU conformity declaration and laboratory tests.

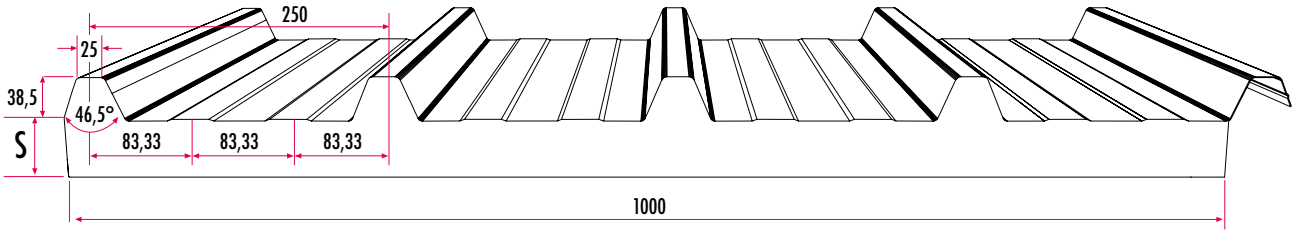
Thermal conductivity coefficient at 10° C degrees (UNI EN 12667) : 0,020-0,023 W/mk

DIMENSIONAL TOLERANCES mm		
Length	L ≤ 3 m L > 3 m	+/- 5 mm +/- 10 mm
Useful width	+/- 2 mm	
Thickness	D ≤ 100 mm D > 100 mm	+/- 2 mm +/- 2%
Perpendicular deviation	0,6 %	
Inner metallic parameters misalignment	+/- 3 mm	
Inferior sheets match	F = 0 + 5 mm	

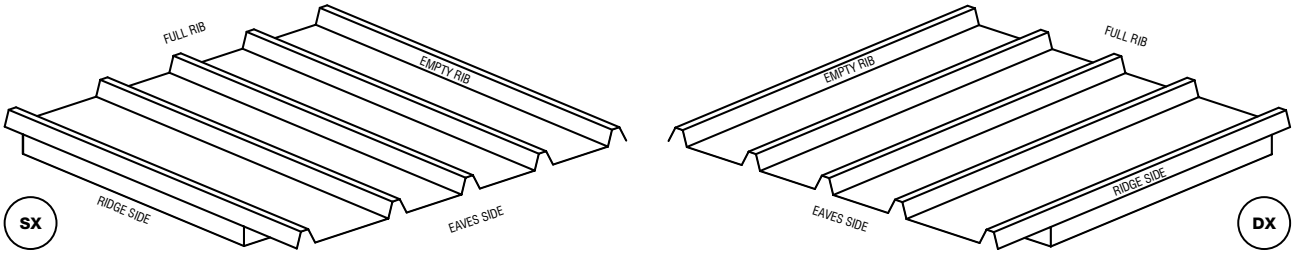
L stands for LENGTH, D standS FOR PAnels thickness and F STANDS FOR MEtal sheets match

THE ECONOMICAL COVERING PROTECTING FROM CLIMATE EVENTS

TECHNICAL DRAW

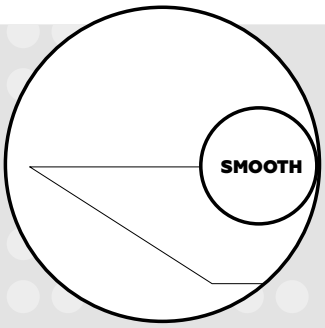


OVER-JOINT



RAINMONO

INTERNAL FINISHES



EXTERNAL COLOURS

7035 C73 | 9002 | 9010 | 9006 | 3009 | 6005 | 8014 | 8004 | 7016 | Giallo Ragusano | ALUZINK | 8004 Anticato

INTERNAL COLOURS

Alluminio Centesimale | CTF | PVC

Standard colours available for panel surfaces. Other colours under request. RAL references on the colours used by Silex are purely indicative.

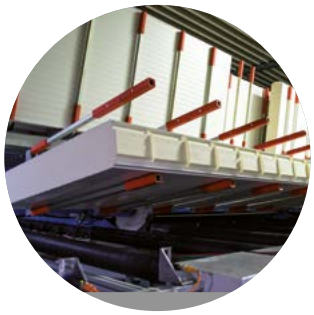
RAIN MONO

THE ECONOMICAL COVERING PROTECTING FROM CLIMATE EVENTS

PANEL THICKNESS (mm)	NOMINAL THICKNESS		PANEL WEIGHT (Kg/m²)
	EXTERNAL SUPPORT (mm)	INTERNAL SUPPORT (mm)	
10	0,50 STEEL	CENTESIMAL ALUMINUM	5,33
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	2,77
	THERMAL TRANSMITTANCE: (U) EN 14509 = 1,54 W/m² K | (K) EN ISO 6946 = 1,39 W/m² K		
20	0,50 STEEL	CENTESIMAL ALUMINUM	5,68
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	3,12
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,93 W/m² K | (K) EN ISO 6946 = 0,84 W/m² K		
30	0,50 STEEL	CENTESIMAL ALUMINUM	6,02
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	3,46
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,66 W/m² K | (K) EN ISO 6946 = 0,60 W/m² K		
40	0,50 STEEL	CENTESIMAL ALUMINUM	6,39
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	3,83
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,52 W/m² K | (K) EN ISO 6946 = 0,47 W/m² K		
50	0,50 STEEL	CENTESIMAL ALUMINUM	6,76
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	6,76
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,42 W/m² K | (K) EN ISO 6946 = 0,38 W/m² K		
60	0,50 STEEL	CENTESIMAL ALUMINUM	7,13
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	4,57
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,36 W/m² K | (K) EN ISO 6946 = 0,32 W/m² K		
80	0,50 STEEL	CENTESIMAL ALUMINUM	7,87
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	5,31
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,27 W/m² K | (K) EN ISO 6946 = 0,25 W/m² K		
100	0,50 STEEL	CENTESIMAL ALUMINUM	8,61
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	6,05
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,22 W/m² K | (K) EN ISO 6946 = 0,20 W/m² K		
120	0,50 STEEL	CENTESIMAL ALUMINUM	9,35
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	6,79
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,18 W/m² K | (K) EN ISO 6946 = 0,17 W/m² K		
150	0,50 STEEL	CENTESIMAL ALUMINUM	10,46
	0,60 ALUMINUM	CENTESIMAL ALUMINUM	7,90
	THERMAL TRANSMITTANCE: (U) EN 14509 = 0,15 W/m² K | (K) EN ISO 6946 = 0,14 W/m² K		

ESTABLISHMENT
40.000
MQ

COVERED
12.000
MQ



STEEL (mm)	SUPPORT WIDTH 100 mm uniformly distributed weights kg/m²						
	150 cm	175 cm	200 cm	225 cm	250 cm	275 cm	300 cm
0,5	145	110	80	60	50		
0,6	195	140	100	65	55		
0,7	270	175	105	75	60	50	
0,8	310	195	130	85	65	55	50
1,0	400	230	160	140	100	85	70

ALUMINUM (mm)	SUPPORT WIDTH 100 mm uniformly distributed weights kg/m²				
	100 cm	125 cm	150 cm	175 cm	200 cm
0,5					
0,6	282	177	120	74	50
0,7	323	207	139	88	59
0,8	370	236	159	100	67
1,0					

Calculation carried out according to the Annex E of the UNI EN 14509 regulation. Load uniformly distributed on the external face, thermal gradient ΔT =0 , light colours and limit of normal deflection 1/200. The data indicated on the tables are purely indicative except for errors or print omissions. For updated data please visit our website www.silexpanels.it. It is up to the architect/engineer to calculate the load values for every single application. Please refer to AIPPEG norms for what not specifically indicated (www.aippeg.it)