



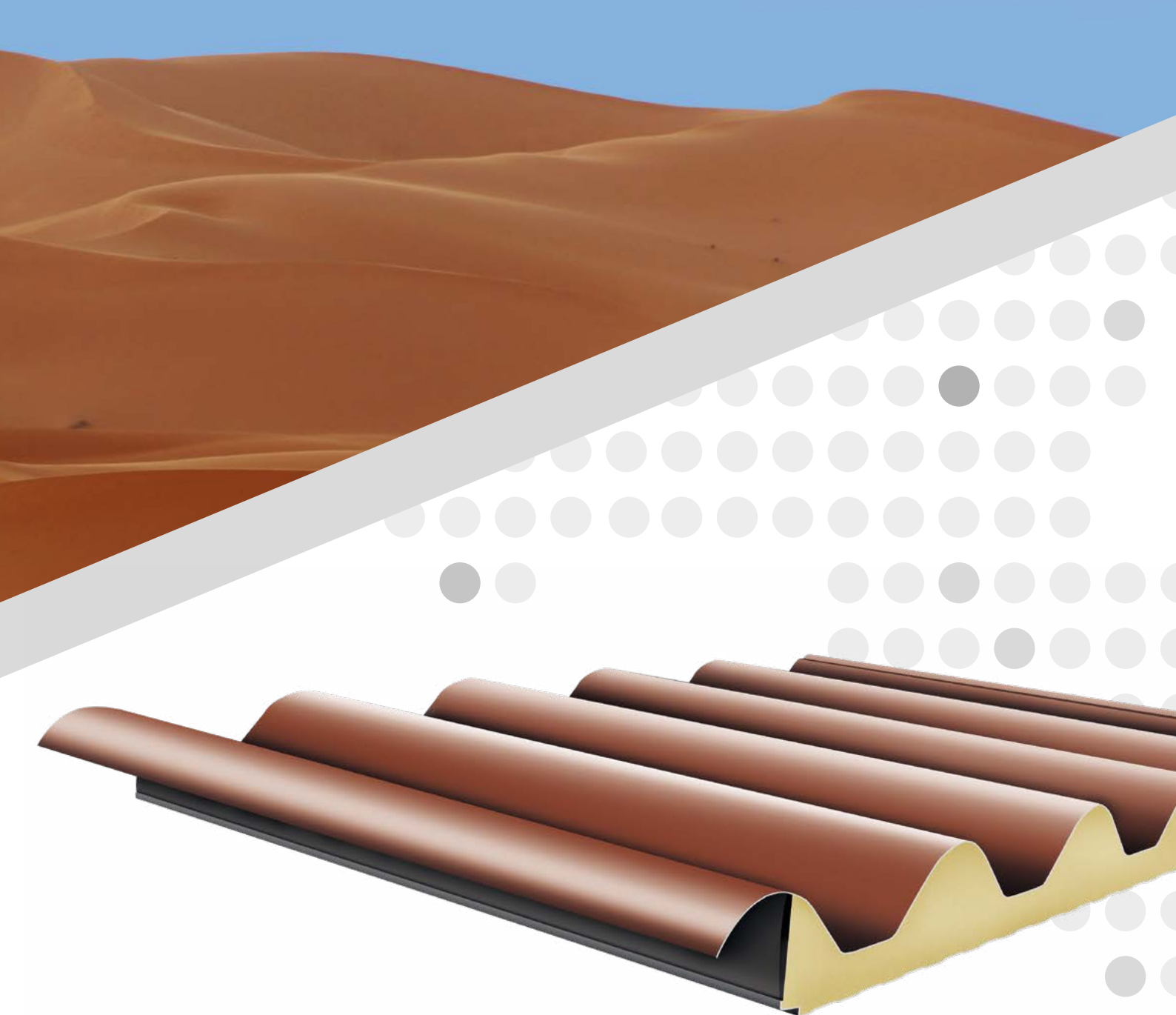
COVERINGPANELS



# WAVE

QUALITY AND AESTHETICS FOR  
THE INDUSTRIAL AND CIVIL COVERING

**WAVE** by **SILEX** is the panel with a waved external finishes, appreciated for its *civil aesthetics* and chosen for its *industrial-architectonic* level.



Wave by Silex is a weight-bearing metallic panel very indicated for the covering of residential buildings and offices, it is also suggested for commercial and industrial buildings where it is required to match thermal insulation and weight –bearing performances with atmospheric agents without giving up at functionality and aesthetics.

The constant demand of having always panels with new shape-solutions pushed our company to realize this covering profile giving a nice aesthetic aspect to roofs: these panels have been studied for the civil construction sector and are made with new metal sheet finishes and colours . We believe this panel can be used for residential, industrial and commercial buildings where there is the need to achieve a modern architectural effect.

External finishes are obtained with a particular painting technology in coil-coating which guarantees in years the aesthetic performance of the panel. The inner side of the panel is

realized to be exposed in view with an elevated quality of the finishing.

The joint has been studied to guarantee tightness and has got, at the top of the full rib, a stair, which interrupts an eventual going back of water for capillarity: in the inner side of the joint, a rib has been created not only to tighten and improve aesthetically the joint but also to favour a security drainage canal that leads capillarity entered in the joint towards the eave.

The several thicknesses of metallic surfaces realized in galvanized steel, aluminium and others metal answer to weight capacities and resistance needs required, while the wide range of coatings and finishes allow to get different performances and many aesthetical 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.



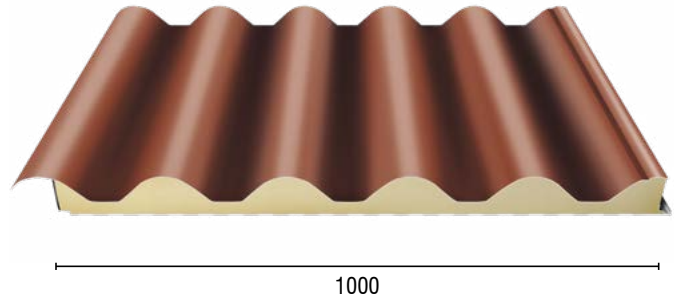
# WAVE

## USEFUL WIDTH

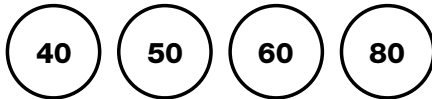
1000 mm

## MAXIMUM LENGTH

13500 mm



## THICKNESSES AVAIBLE



### 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/m<sup>3</sup> and in any case as indicated in the EU conformity declaration and laboratory tests.

Thermal conductivity coefficient at 10° C degrees (UNI EN 12667) : 0,020-0,0.

### PIR INSULATION

Made of polyisocyanurate free from CFC and HCFC, approximate density 35-40 kg/m<sup>3</sup> 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

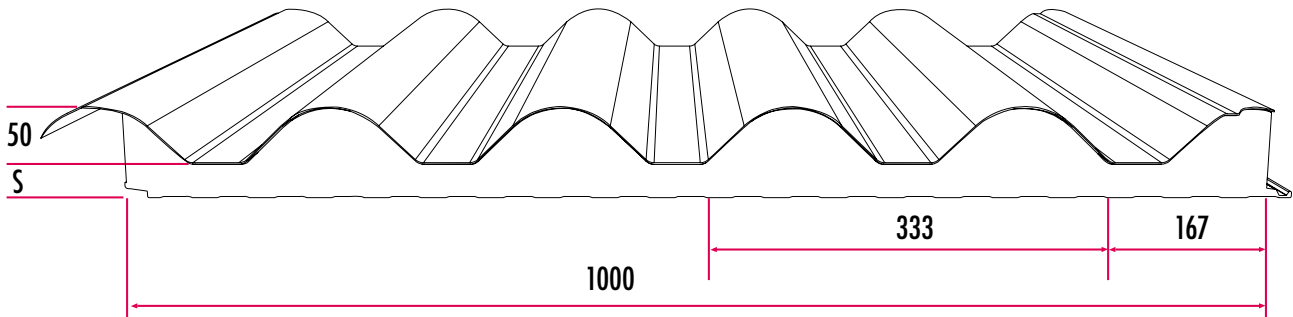
#### DIMENSIONAL TOLERANCES mm

Length	L ≤ 3 m	+/- 5 mm
	L > 3 m	+/- 10 mm
Useful width	+/- 2 mm	
Thickness	D ≤ 100 mm	+/- 2 mm
	D > 100 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

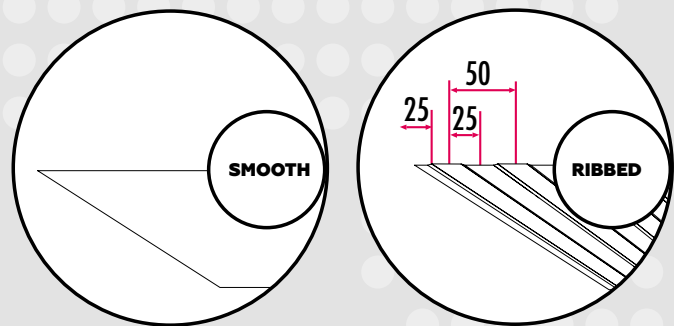
# QUALITY AND AESTHETICS FOR THE INDUSTRIAL AND CIVIL COVERING

## TECHNICAL DRAW

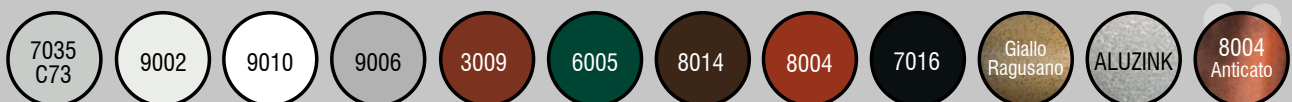


## WAVE

### INTERNAL FINISHES



### EXTERNAL COLOURS



### INTERNAL COLOURS



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


# WAVE

QUALITY AND AESTHETICS FOR THE INDUSTRIAL AND CIVIL COVERING



PANEL THICKNESS (mm)	NOMINAL THICKNESS		PANEL WEIGHT (Kg/m <sup>2</sup> )
	EXTERNAL SUPPORT (mm)	INTERNAL SUPPORT (mm)	
40	0,50 STEEL	0,50 STEEL	9,12
	THERMAL TRANSMITTANCE: (K) EN ISO 6946 = 0,36 W/m <sup>2</sup> K		
50	0,50 STEEL	0,50 STEEL	9,50
	THERMAL TRANSMITTANCE: (K) EN ISO 6946 = 0,32 W/m <sup>2</sup> K		
60	0,50 STEEL	0,50 STEEL	9,88
	THERMAL TRANSMITTANCE: (K) EN ISO 6946 = 0,28 W/m <sup>2</sup> K		
80	0,50 STEEL	0,50 STEEL	10,64
	THERMAL TRANSMITTANCE: (K) EN ISO 6946 = 0,22 W/m <sup>2</sup> K		

PANEL THICKNESS (mm)	SUPPORT WIDTH						
	100 mm $\triangle$ uniformly distributed weights kg/m <sup>2</sup>						
	150 cm	200 cm	250 cm	300 cm	350 cm	400 cm	450 cm
40	245	180	145	80	50		
50	305	210	160	95	60	40	
60	370	250	190	120	80	50	
80	430	300	220	155	105	75	50

 Calculation carried out according to the Annex E of the UNI EN 14509 regulation. Load uniformly distributed on the external face, thermal gradient T = 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](http://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](http://www.aippeg.it))