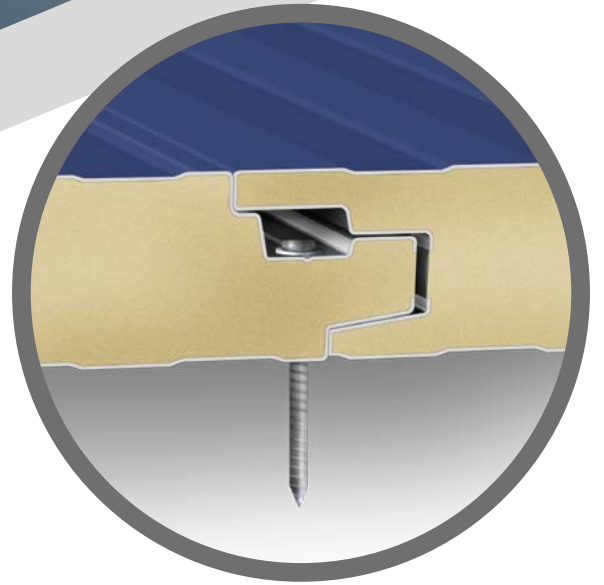




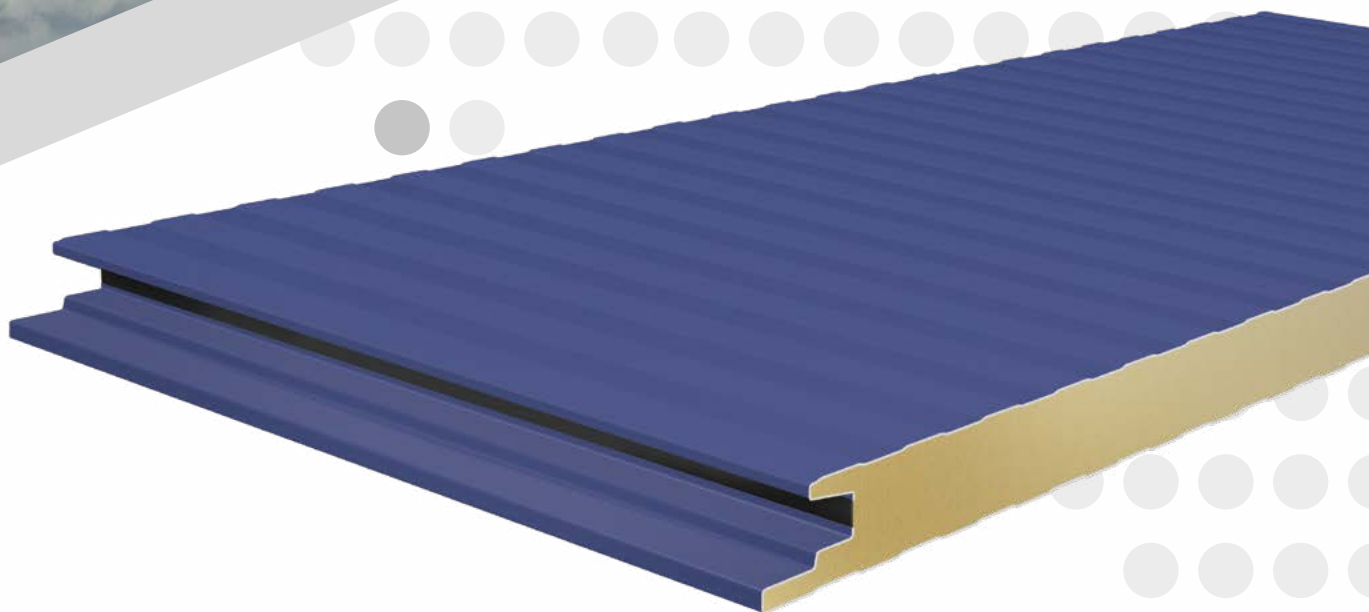
WALLPANELS



# TWISTER

THE ELEGANCE  
OF A PERFECT INSULATION

**TWISTER** by **SILEX** represents an important solution for designers/architects to realize *external building closures* and when it is necessary to match the architectural image of the façade with *technical performances of thermal insulation, acoustic insulation* and *fire* reaction required by the current norm.



Twister by Silex is an insulated panel with architectural finishes, designed for building wall closures where the sense of installation , vertical , horizontal or oblique , contributes to the aesthetic result of the work.

The joint has been studied with a labyrinth system to hide the closure, maintaining all insulating features Silex panels always guarantee: the joint “head-head”, in a horizontal or oblique installation , can be realized either with extruded profiles in aluminium or with simple accessories.

Aesthetically, the panel allow designers to choose from different external and internal finishes: specifically on the outer side we offer a draw in 2 types, large diamond-tip (width 100 mm) and narrow diamond-tip (width 15 mm); we also offer a “waved” finishing with a light wave (width 50 mm) or a perfectly smooth and plane finishing. On the inner side we offer a ribbed draw of 2 types or a perfectly smooth and plane surface.

These patterns realize shadow effects on the surfaces moving the planarity of the facade and embellishing the architectural value of the work.

The several thicknesses of metal sheets realized in galvanized steel , stainless steel, aluminium and other metals, 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; the PIR version is not only auto-extinguishing but also achieves the fire reaction rank Bs2-d0

Thanks to the surface finishing variety combined with the quality of Silex panel hidden joint, allow to create quality building facades with an elevated aesthetic value



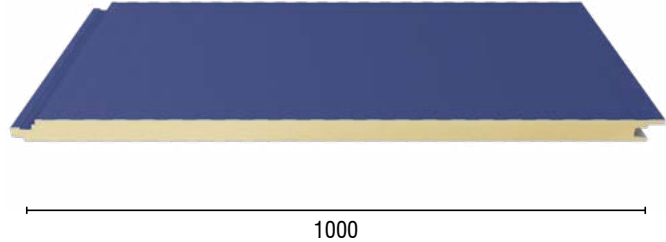
# TWISTER

## USEFUL WIDTH

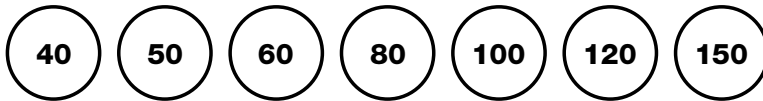
1000 mm

## MAXIMUM LENGTH

15000 mm



## THICKNESSES AVAILABLE



### 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) : 0,020-0,023 W/mk.

### 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

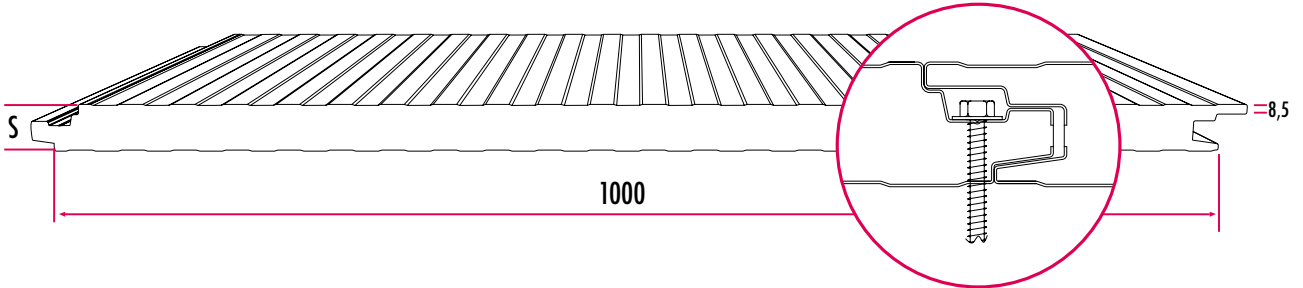
#### DIMENSIONAL TOLERANCES mm

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

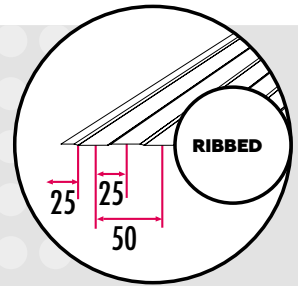
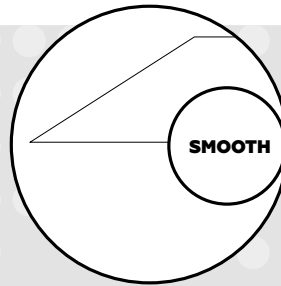
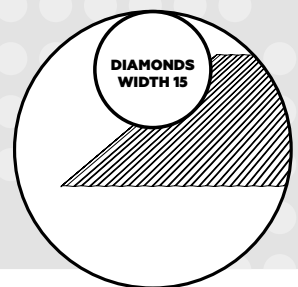
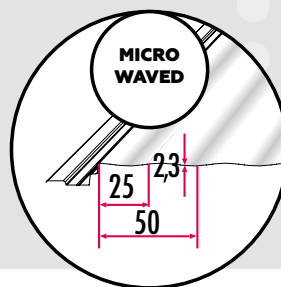
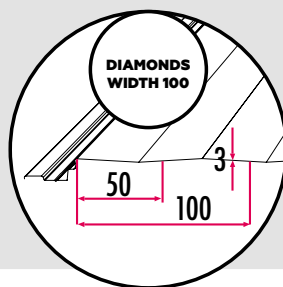
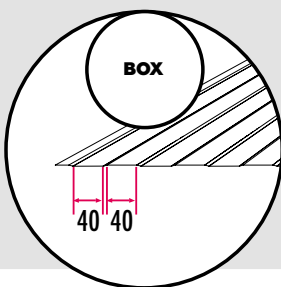
# THE ELEGANCE OF A PERFECT INSULATION

## TECHNICAL DRAW

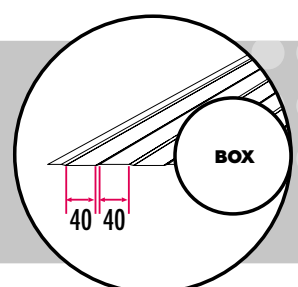
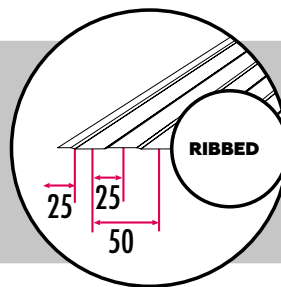
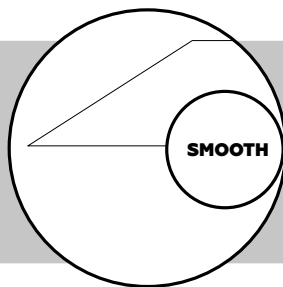


# TWISTER

## EXTERNAL FINISHING



## INTERNAL FINISHING



## EXTERNAL COLOURS



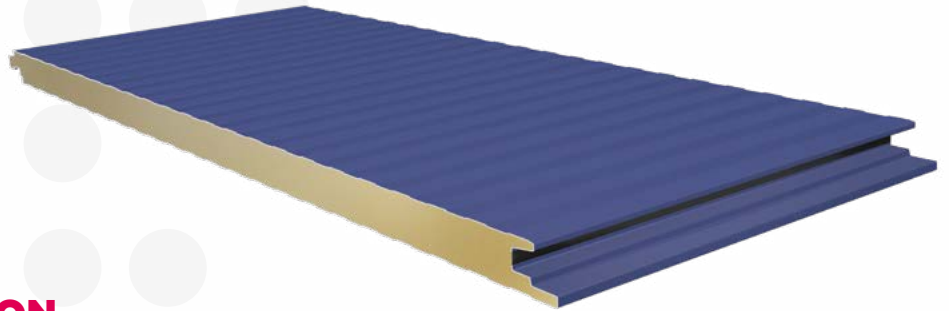
## INTERNAL COLOURS



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


# TWISTER

THE ELEGANCE OF A PERFECT INSULATION



## VERTICAL INSTALLATION

PANEL THICKNESS (mm)	NOMINAL THICKNESS		PANEL WEIGHT (Kg/m <sup>2</sup> )	SUPPORT WIDTH 100 mm uniformly distributed weights kg/m <sup>2</sup>																
	EXTERNAL SUPPORT (mm)	INTERNAL SUPPORT (mm)		200 cm	250 cm	300 cm	350 cm	400 cm	450 cm	500 cm	550 cm	600 cm	650 cm	700 cm	750 cm	800 cm	800 cm	850 cm	900 cm	
40	0,50 STEEL	0,50 STEEL	9,3	200	160	110	80	55												
	0,60 STEEL	0,50 STEEL	10,1	205	165	120	85	65	50											
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,64 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,49 W/m <sup>2</sup> K																
50	0,50 STEEL	0,50 STEEL	9,6	250	200	140	105	80	60	50										
	0,60 STEEL	0,50 STEEL	10,5	255	205	150	110	85	65	55										
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,51 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,40 W/m <sup>2</sup> K																
60	0,50 STEEL	0,50 STEEL	10,0	305	245	170	125	95	75	60	50									
	0,60 STEEL	0,50 STEEL	10,9	310	250	185	135	100	80	65	55	50								
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,42 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,33 W/m <sup>2</sup> K																
80	0,50 STEEL	0,50 STEEL	10,8	410	325	230	170	130	100	80	65	55								
	0,60 STEEL	0,50 STEEL	11,7	415	330	245	180	140	110	85	70	60	50							
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,30 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,25 W/m <sup>2</sup> K																
100	0,50 STEEL	0,50 STEEL	11,4	515	410	290	210	160	125	100	85	70	60	50						
	0,60 STEEL	0,50 STEEL	12,3	520	415	310	225	175	135	110	90	75	65	55						
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,23 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,20 W/m <sup>2</sup> K																
120	0,50 STEEL	0,50 STEEL	12,2	545	435	345	255	195	155	125	100	85	70	60	55					
	0,60 STEEL	0,50 STEEL	13,1	550	440	365	275	210	165	135	110	90	80	65	60	50				
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,20 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,17 W/m <sup>2</sup> K																
150	0,50 STEEL	0,50 STEEL	13,3	580	460	385	320	245	190	155	130	105	90	80	70	60	50			
	0,60 STEEL	0,50 STEEL	14,2	585	465	390	330	260	205	165	140	115	100	85	75	65	55	50		
				THERMAL TRANSMITTANCE: (U) EN 14509 = 0,16 W/m <sup>2</sup> K   (K) EN ISO 6946 = 0,14 W/m <sup>2</sup> K																

 Effective width of the support 100 mm. Calculation carried out according with the Annex E of the UNI EN 14509 regulation. Wind action on the external face , thermal gradient T =0 , light colours and limit of the normal deflection 1/100. 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))