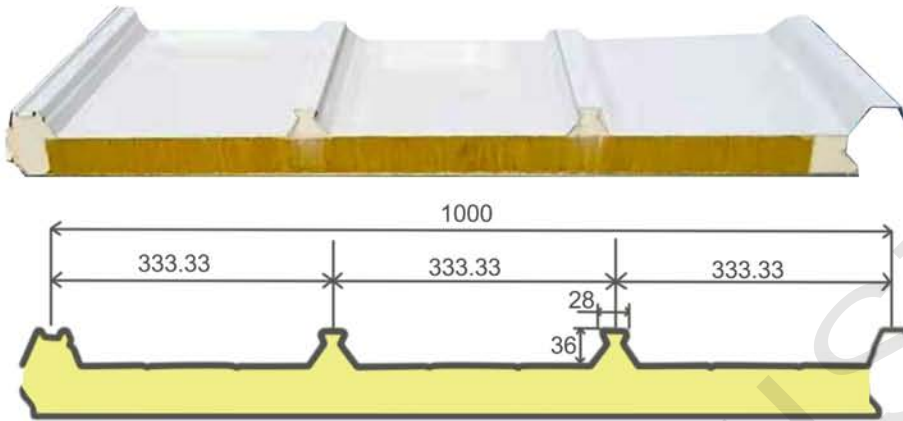


## Panel introduction



Yumisteel develop this roof sandwich panels in 2018, and we also called solar photovoltaic panel. This panel is with double metal sheet on panel surface and insulated with polyurethane foam or rockwool/ glass wool with PU edges. The special rib shape allows to complement the system with solar panels or wall accessories by simple and quick operations.

### Instructions of use:



This panel is with special ribs to connect with accessories to install solar panels on roof. Meanwhile it can be used as common roof or wall, too.

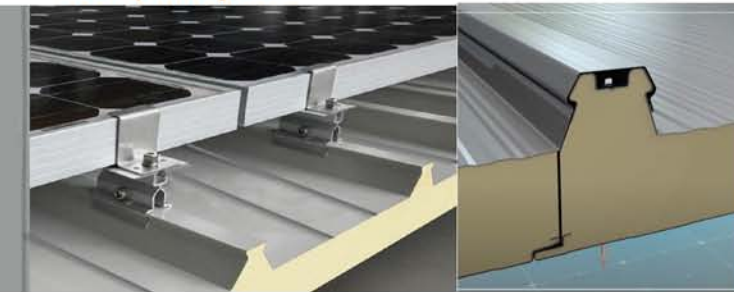
### Basic information:

<b>Panel type:</b>	Roof sandwich panel for solar photovoltaic system		
<b>Joint type:</b>	4 ribs concealed joint		
<b>Effective width:</b>	1000 mm		
<b>Panel thickness:</b>	50/75/100/150mm		
<b>Coating type:</b>	PE, SMP, HDP, PVDF		
<b>Surface sheets:</b>	Steel sheet (GI/PPGI/PPGL): 0.40-0.70mm		
	Aluminum metal sheet: 0.60-1.20mm		
	Aluminum foils: 0.065mm		
<b>Core material:</b>	PVC sheets		
	PIR/PUR	Rockwool with PU edges	Glass wool with PU edges
<b>Core density:</b>	35-45kg/m <sup>3</sup>	110-150kg/m <sup>3</sup>	48-64kg/m <sup>3</sup>
<b>Thermal Conductivity</b>	≤0.023 w/m·k	0.035-0.041 w/m·k	0.037-0.043 w/m·k

### Accessory connection example:



### Roof panel joint:



Example with roof accessory

Example with wall accessory

## Panel technical data

Loading span table of roof panel with PU core material:

STEEL SHEETS 0,5 / 0,5 mm - Support 120 mm								STEEL SHEETS 0,6 / 0,5 mm - Support 120 mm							
UNIFORMLY DISTRIBUTED LOAD  kg/m <sup>2</sup>	PANEL NOMINAL THICKNESS mm							PANEL NOMINAL THICKNESS mm							
	30	40	50	60	80	100	120	30	40	50	60	80	100	120	
	MAX SPANS cm							MAX SPANS cm							
80	295	330	370	400	470	530	590	310	340	390	420	490	550	610	
100	260	305	330	370	430	490	540	260	315	350	390	440	500	560	
120	220	275	300	330	395	435	490	220	290	330	355	400	450	500	
140	195	250	270	295	360	410	480	195	250	295	320	360	420	460	
160	170	220	250	270	320	380	420	170	220	270	290	340	390	430	
180	150	200	230	245	285	340	400	155	200	245	265	310	360	400	
200	140	180	210	225	260	310	360	135	180	225	250	285	330	380	
220	125	165	200	210	240	280	330	125	175	200	230	265	305	350	
250	110	145	180	195	215	250	280	115	150	180	210	235	270	310	

Specifications tolerance:

Panel length :	L = 3 m ± 5 mm L > 3 m : ± 10 mm
Thickness :	THK = 100 m : ± 2 mm THK > 100 m : ± 2 %
Steel sheet thickness :	± 0.03 mm
Density for PUR/ PIR :	± 2 kg/m <sup>3</sup>
Density for rockwool :	± 5 kg/m <sup>3</sup>
Density for glass wool :	± 3 kg/m <sup>3</sup>

Loading span table of roof panel with Rockwool&PU edges core material:

STEEL SHEETS 0.5/0.5 mm - Simple support 120 mm							STEEL SHEETS 0.6 / 0.6 mm - Simple support 120 mm						
UNIFORMLY DISTRIBUTED LOAD [kg/m <sup>2</sup> ]	NOMINAL PANEL THICKNESS mm						NOMINAL PANEL THICKNESS mm						
	50	60	80	100	120	150	50	60	80	100	120	150	
	MAXIMUM SPAN cm						MAXIMUM SPAN cm						
<b>80</b>	325	355	415	470	515	550	<b>80</b>	345	370	425	490	535	595
<b>100</b>	300	325	370	425	480	525	<b>100</b>	310	335	390	445	495	570
<b>120</b>	270	300	345	390	435	505	<b>120</b>	290	310	355	405	450	515
<b>140</b>	255	270	315	360	405	470	<b>140</b>	270	290	325	370	415	490
<b>160</b>	245	265	300	335	380	435	<b>160</b>	255	270	310	355	390	450
<b>180</b>	225	245	280	315	355	405	<b>180</b>	245	255	290	325	360	425
<b>200</b>	210	225	270	300	335	390	<b>200</b>	225	245	280	310	345	400
<b>220</b>	195	215	255	285	315	370	<b>220</b>	210	235	265	300	335	380
<b>250</b>	175	195	230	270	295	345	<b>250</b>	190	210	245	280	310	355

Thermal conductivity:

PU core material:

Panel thickness(mm)	40	50	75	100	150	200
U(W/m <sup>2</sup> ·K)	0.67	0.35	0.26	0.22	0.15	0.11

Rockwool with PU edges core material:

Panel thickness(mm)	50	75	100	120
U(W/m <sup>2</sup> ·K)	0.78	0.58	0.41	0.28