

Rockwool sandwich panels introduction

1. Product instruction:

A) Surface sheets description:

The surface sheets of rockwool composite panels could be PPGI steel sheets, PPGL steel sheets. The difference between them is PPGI is prepainted galvanized steel and PPGL is prepainted 55% Al-Zn coated steel, please take note for this. Except this difference, please refer to the material range as following table:

Thickness:	0.30-0.70mm
Zinc or Al-Zn coating :	40-275g/m ²
Steel standards: (If other standards, please indicate.)	Q235 / 345 (China GB standards)
Top coating:	22-25μm
Bottom coating:	7-10μm
Coating type:	PE, SMP, PVDF, HDP etc.
Regular color:	White/Sea blue/DK grey/Sliver grey/White silver grey/Iron grey
Special color:	Could be customized

B) Core material description:

Rockwool is A level fireproof core material for sandwich panels, but this kind of material is afraid of water, so no matter it's production, delivery, or installation, we all need to take note for waterproof problem for rockwool material. Our thickness for rockwool is 50, 75, 80, 100, 150, 200mm, and density range is 80 - 150 KG/M³.

C) Material warranty:

Our steel sheets cooperating partners are Bao-steel, Shougang steel, Guanzhou steel, Yieh Phui steel, etc. Rockwool raw material is our branch factory made it.

What effects on panel lifetime?

- 1) Steel brand: Good steel brand could make sure good zinc and color coating, which avoid color fading;
- 2) Need to choose the suitable coating type for your project, according to your local climate features;
- 3) Need to do regular inspection and maintenance per 6 months.

D) Product features:

- 1) Good sound insulation and sound absorption;
- 2) Excellent thermal properties;
- 3) A1 level fire-resistant properties;

4) Excellent and suitable for outdoor use;

5) Easy installation.

E) Material tolerances:

Length: If length ≤ 3 meters, ± 5 mm;

If length > 3 meters, ± 10 mm.

Width: ± 3 mm

Steel sheet thickness: ± 0.02 mm

Panel thickness: ± 2 mm

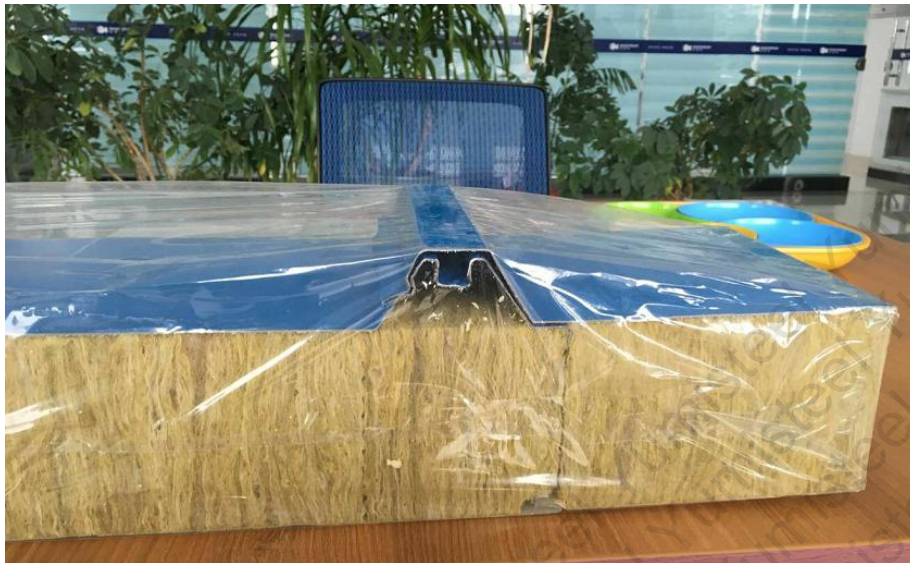
2. Product assembly:

We have different kinds of joint way for rockwool sandwich panels for customers' choices.

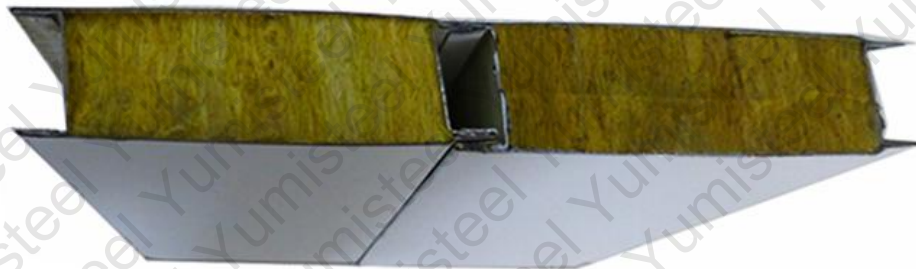
Joint way for common 960mm roof sandwich panels:



Joint way for common 950mm roof sandwich panels (Hidden screws joint way):



Joint way for common 950/1150mm wall sandwich panels:



Joint way for common 950mm wall sandwich panels(Z lock joint):



Joint way for common 1000/1100mm wall sandwich panels(horizontal lock joint):



Assembling steps:

- Using self-drilling screws to attach sandwich panels to the structure or roof trusses;
- For wall metal panels installation,the top, bottom and crosscut parts for composite panels should be finished with U section frames;
- For wall sandwich panels corner installation, aluminum corner profiles should be attached to both inner and outer corners;

- Regarding wall insulated outside installation, we advise to protect tops of sandwich panels with rain profiles, also need to seal seams between bottom profiles and sandwich panels;
- For roof sandwich panels, need to install from the outermost, and install panels one by one and attach self-screws;
- For roof panels installation, install the eave flashing first, then the ridge flashings.

3. Panel technical data:

A) Sound damping value:

Rockwool sandwich panels Sound damping value			
Core material thickness(mm)	Sound reduction index(dB)	Spectrum adaptation factors	
		C(dB)	Ctr(dB)
50	30	-1	-4
75	31.5	-2	-4
100	34	-2	-4
150	35	-3	-5

Note: These data is based on steel thickness 0.40-0.50mm and rock wool density 100KG/M³.

B) Panel Theoretical weight:

Rockwool sandwich panels Theoretical weight			
Panel type	Steel thickness	Rockwool density	Panel weight/M ²
50mm Wall sandwich panels	0.40 mm	80 KG/M ³	10.28
		100 KG/M ³	11.28
	0.50 mm	80 KG/M ³	11.85
		100 KG/M ³	12.85
	0.60 mm	80 KG/M ³	13.42

	0.70 mm	100 KG/M ³	14.42
		80 KG/M ³	14.99
50mm Roof sandwich panels	0.40 mm	100 KG/M ³	15.99
		80 KG/M ³	10.91
	0.50 mm	100 KG/M ³	11.91
		80 KG/M ³	12.64
	0.60 mm	100 KG/M ³	13.64
		80 KG/M ³	14.36
	0.70 mm	100 KG/M ³	15.36
		80 KG/M ³	16.09
17.09			
Remark:For other thickness,please contact us for details,thank you.			

C) Thermal transmittance coefficient(U value):

Panel thickness(mm)	50	75	100	150
U(W/m ² ·K)	0.78	0.58	0.41	0.28

D) Thermal resistance coefficient(R value):

Panel thickness(mm)	50	75	100	150
R(m ² ·K/W)	1.28	1.76	2.44	3.57

4. Packing & Unloading:

Packing:

We advise to choose type of packages,according to your desitination, local climate and storage time.

1) If your country need long time shipment from China, it's better to pack sandwich panels in bundles and cover with PVC film,to make panel moistureproof;

2) If your local climate is not good,also require us to pack panels in

bundles and cover with PVC film or use sealing tape to seal all the ends of sandwich panels;

3) If your storage time will be over 15days,please require us to pack panels in bundles and cover with PVC film or use sealing tape to seal all the ends of sandwich panels.

Unloading:

1) In order to avoid damages to the top or bottom part of packages of composite panels,the length of packages and their bending possibility must be taken into consideration,when you use forklift to unload sandwich panels;

2) Make sure the forks are wide and long enough to hold all the panels.

5. Panel maintenance:

Our sandwich panels surface sheets are made with metal sheets,so it requires maintenance.At least 1 year 1 time for maintenance,especially the panel used as external part (external wall and roof).

Also recommending that to do regular cleaning on roof,and pay special attention to the area which could facilitate rain or water stagnation,in order to make long durability of metal sandwich panels.

If you find any problem on panel on site,warmly welcome you to discuss with us,we will do our after-sales work for you.

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