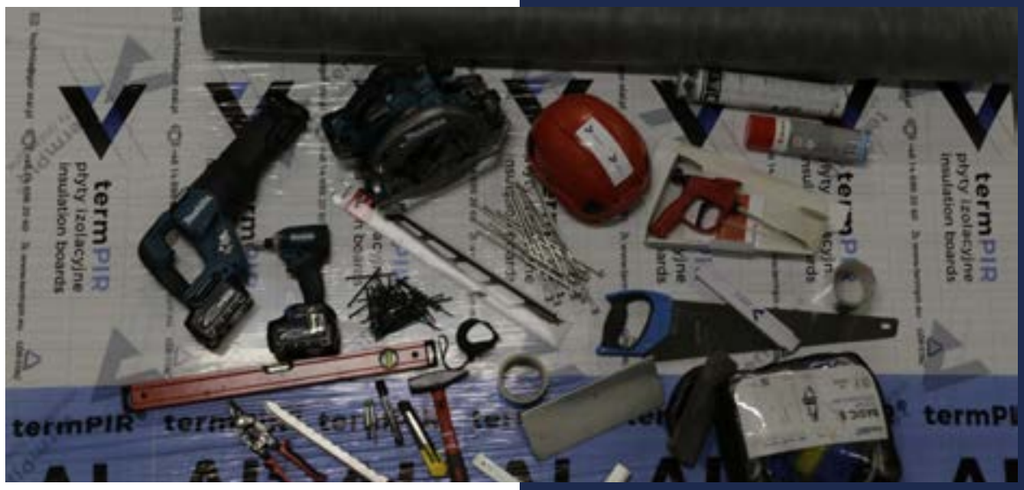
termPIR®
insulation boards

Insulation boards from Gór-Stal

termPIR® INSULATION BOARDS

BOARDS INSTALLATION INSTRUCTIONS FOR A SLOPING ROOF IN AN OVER-RAFTER SYSTEM

(variant I SIGHA)



termPIR® Insulation boards

MATERIALS AND TOOLS NEEDED FOR INSTALLATION

- termPIR AL, MAX 19 AL, WS insulation boards;
- System aluminium tape;
- Dedicated wood screws;
- Low pressure polyurethane foam;
- Battens and counter battens, planks;
- Electric screwdriver;
- Fine-toothed saw;
- Sanding float;
- Marker;
- Measure tape;
- Knife;
- Screws ⌀ 8 mm

* SIHGA Go Fix screws are avaiable in the sales proposal of Gór-Stal company

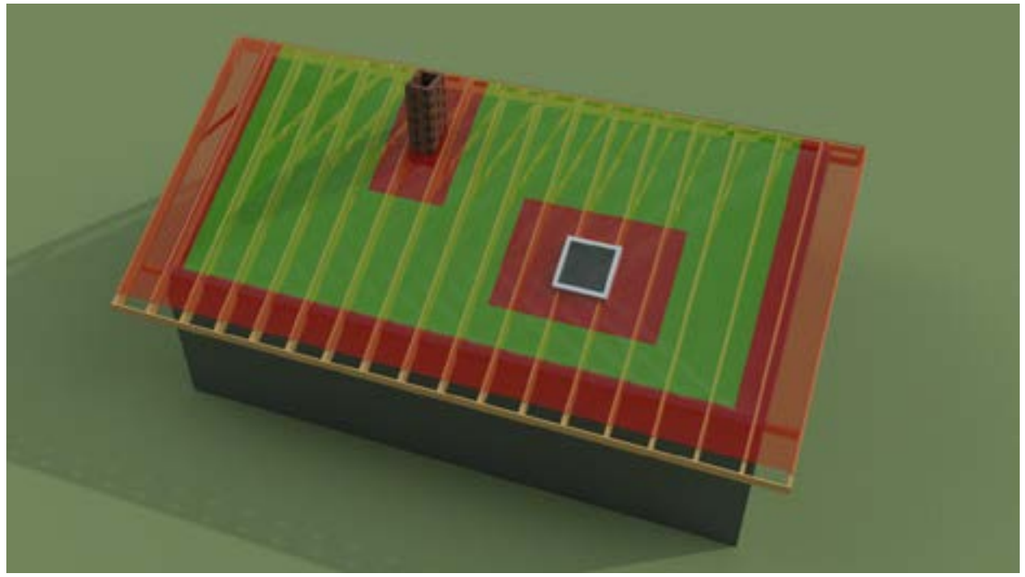
Screw selection for the termPIR® board installation in an over-rafter system

Screw selection chart

termPIR® board thickness	Recommended screw length	Recommended quantity of screws for 1 linear metre of counterbatten.	
		In the interior zone (green)	In the edge zone (red)
120 mm	260 mm	3 pieces (spaced ca. 35-40 cm apart)*	+ 1 piece to add to the quantity from the column on the left
130 mm	280 mm		
140 mm			
150 mm	300 mm		
160 mm			
170 mm	320 mm		
180 mm			
190 mm	340 mm		
200 mm			
210 mm	360 mm		
220 mm			

* quantities valid for installation only at an angle of 90 degrees

The picture below shows the arrangement of the zones on a roof



TRANSPORT AND STORAGE of termPIR® INSULATION BOARDS

During transport and unloading of termPIR insulation boards ensure that panel edges (interlocking joints)
are protected so that the edges are not damaged while being lifted and stored. Lift the boards using special lifting straps or carry them manually one at a time (Photo 01, 02).

For detailed information on transporting and storing our insulation boards please go to www.termpir.eu

Important:
Any mechanical damage to the edges, or panel soiling (caused by storing directly on the ground) may affect
insulation integrity.

Photo 01

Photo 02

STAGE I: PREPARING SURFACES FOR THE INSTALLATION OF termPIR INSULATION BOARDS

In the termPIR over-rafter system no full boarding is required, however, for economic and aesthetic reasons it is recommended to give such installation prior consideration (Photo 3, 4).

In rooms with increased air humidity it is recommended to lay vapor barrier. This layer should be located directly above ceiling trim. (In the case of visible roof construction and boarding, layer mentioned above should be put directly under termPIR ® boards.)

Photo 03

Photo 04

STAGE II: termPIR® INSULATION BOARDS INSTALLATION

First, cut and align rafters and properly install an eaves board. (Photo 05, 06)

The first row of termPIR insulation boards should be installed starting from an eaves board or an additional beam installed on the rafters below the facade wall and roof plane joint.

Any height differences on the rafters should be compensated using wooden components which should be aligned with insulation level. Install boards along a horizontal line from one side of the roof to the other, sealing the gaps with aluminium tape as you go. (Photo 07, 08)

Photo 05

Photo 06

Photo 07

Photo 08

Photo 09

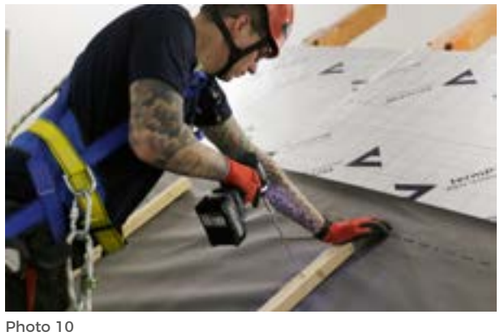


Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Tighten the counter battens with screws avaiable in the product offer of Gór-Stal company. The first row of screws should be installed to reach the rafter at a distance of ca. 15 cm from an eaves board. Tighten screws through the counter battens, membrane and isulation board to reach the rafter at an angle of 90˚ relative to the roof plane (Photo 9,10). For detailed guidelines for single-family houses please go to www.termpir.eu.

Cut the boards to appropriate lenght to align with the edge of the roof (Photo 11), using a knife (Photo 12), wood saw (Photo 13) or circular saw (Photo 14) and if, necessary, smooth the surface using a float with sandpaper (Photo 15,16)

Photo 15

Photo 16

Photo17

Photo 18

Photo19

Photo 20

Photo 21

Photo 22

All gaps in excesss of ca. 3 mm (Photo 17, 18) appearing along of the panel joints as well as joints of different roof slants (e.g. ridge line, rood ridges, valleys, etc.) should be insulated with low pressure polyurethane foam, the excess of which should be removed (Photo 19) and it should be secured with aluminium tape (Photo 20).

After you have installed the first belt of termPIR boards, go on to installing the subsequent layer in a staggered pattern, i.e. offset relative to the adjoining board row and protect it with aluminium tape (Photo 21, 22). When installing the subsequent rows, use the leftover pieces of insulation panels that were cut off before and start installation using these cut-offs.

Photo 23

Photo 24

Photo 25

Photo 26

Photo 27

Photo 28

After you have installed the second row of boards, roll out vapour permeable barrier and fasten it using counter battens fixing them with wood screws to reach the rafter (Photo 23, 24)

Now attach battens transversely to such a structure (Photos 25-27), spaced apart by the distance as required for given roofing, according to the manufacturer's guidelines (Photo 28). All of the operations involved in the installation of structural components should be carried out in accordance with the design and good roofing practice.

RECOMMENDATIONS:

Given the large size and low weight of termPIR insulation boardss, work at height should be carried out in favourable weather conditions (wind gusts). In order to seal wider gaps between the panels use wider aluminium tape which will facilitate installation and reduce tape usage. In order to achieve better building insulation, the gaps can be additionally protected from inside with aluminium tape (for solution without boarding).

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