

# IZOBETA

## Insulation panel with internal ventilation system Izodom 2000 Polska



The insulation panel with internal ventilation system is a product of Izodom 2000 Polska, intended for the thermal renovation of existing buildings. Thanks to the use of innovative solutions developed by Izodom 2000 Polska, by applying insulation panels with internal ventilation system, we simultaneously obtain two effects: insulation of the existing building and continuous, durable drying of the insulated wall. As a result of the migration of condensate coming from the wall and travelling along a system of internal vertical and horizontal channels, in the final stage the moisture evaporates into the atmosphere via the installed "mini-grating" ventilation system.

Panels are attached in a traditional way, by means of adhesive and plastic wall plugs with collars. The wall plugs affix the panel by means of a special collar in its upper right-hand edge. This collar is covered by successive erected panels, preventing formation of thermal bridges. Each panel is produced in an individual mould. Thus both the geometry of the panel and the ideal smoothness of all surfaces provide an excellent join between neighbouring panels, prevent gaps and the insulation surface obtained is exceptionally smooth and even.

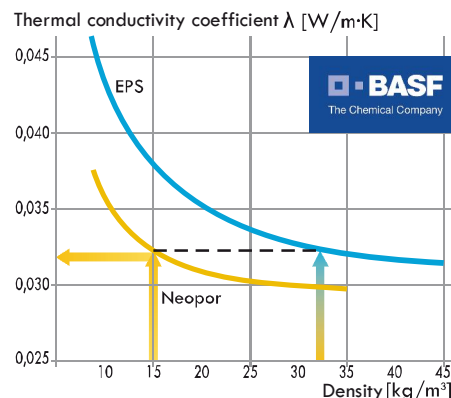
There is no need to sand the external surface of the panels. Our product range includes panels made of traditional, white EPS and grey Neopor. These materials are produced by BASF. They feature a very low heat transfer coefficient and are resistant to biological corrosion. Insulation carried out using IZOBETA may be finished with a thin-coat plaster or façade tiles. Panels will soon be available with a ready-made finish in the form of a rustic effect.

Advantages of our insulation panels with internal ventilation system:

- 1. Possibility of insulating even very damp walls** - the walls will be continuously dried, even after the airtight insulation is executed;
- 2. Continuity of the created insulation** - obtained thanks to panels being connected by a double "tongue and groove";
- 3. No thermal bridges** - ensured by the special structure of panels, with plastic wall plugs with collars inside the insulation;
- 4. Repeatability of dimensions and shapes** - thus their erection and fitting are simple and quick;
- 5. Smooth and non-absorbent surface of panels** - guaranteeing exceptionally long life;
- 6. Ease and simplicity of erection** - ensured by the unique construction of our panels.



Any moisture gathering inside runs out via a network of channels to the outside of the wall, from where it can evaporate into the atmosphere. At the same time, the special structure of panels prevents formation of thermal bridges and effectively insulates the building.



All insulation panels with internal ventilation system can be made of EPS or NEOPOR. The insulating capability of both materials is illustrated by the above graph. They are available in two thicknesses: 8 and 12 cm. More information concerning our products may be obtained from our representative, our offices at the web site: [www.izodom2000polska.com](http://www.izodom2000polska.com)



PL-NEO 80

Insulation panel with internal ventilation system 8 x 100 x 56,7 [cm]



PL-NEO 120

Insulation panel with internal ventilation system 12 x 100 x 56,7 [cm]

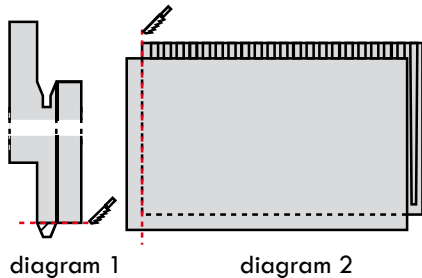
Insulation panels with internal ventilation system ensure excellent insulation of existing buildings and enable drying out damp walls. Below please find the most important information about how these panels should be erected:

**Stage 1**

Affix the strip intended for panels with a thickness of 8 or 12 cm - depending on the thickness of insulation adopted.

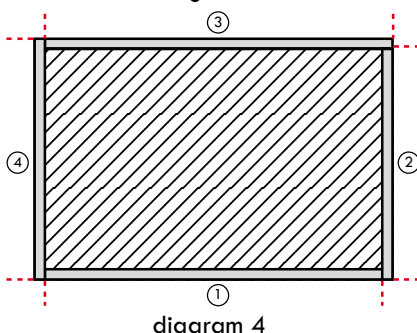
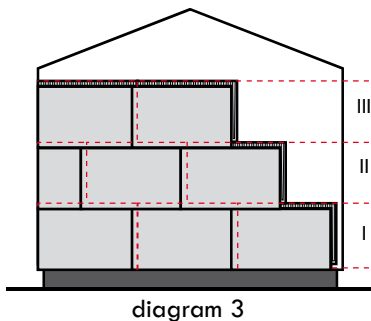
**Stage 2**

In the panels intended to be erected in the first bottom row of insulation one should remove the lower "tongue" [diagram 1]



**Stage 3**

Erection of the first row of panels should be commenced by cutting the first panel [diagram 2]. We attach the panel with adhesive and 3-4 wall plugs affixed to the collar in the upper right-hand side of the panel. We erect the panels from left to right, in each successive row of insulation.



**Stage 4**

When carrying out insulation of a building surface we should apply the following principle: while erecting the insulation of the first wall, we begin and finish erecting panels evenly with that wall's left and right edge [diagram 4]. Every successive row of panels should be moved across in order to stagger their erection with regard to the previous row by 1/2 the length of a panel.

**Stage 5**

Carrying out the insulation of the next wall [diagram 4], we affix the first panel of the bottom row of panels so that its left side is installed to "overlap" the already finished insulation on the previous wall. All the panels of every successive erected row of panels should be cut off evenly with the right-hand edge of the wall.

**Stage 6**

Before execution of a thin-coat plaster or other finish, all visible horizontal channels located in corners, window openings and door openings should be filled with PU foam to a depth equal to the thickness of the insulation.

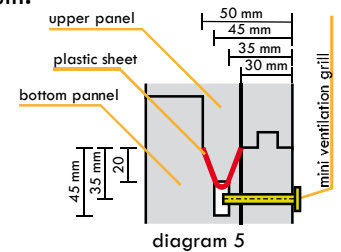
**Stage 7**

In order to drain off into the atmosphere excess condensation from the wall, in single-storey buildings, between the last but one and last row of erected panels, one should install a barrier made of strips of plastic sheet 6 cm in width [diagram 5]. This plastic sheet closes the vertical crevices and makes it impossible for any water vapour to migrate upwards inside an insulation panel with internal ventilation system. The water vapour will gather in the upper internal, horizontal channel below the plastic sheet barrier. The accumulated vapour is released via the wall ventilation mini grills supplied by Izodom 2000 Polska. The grills should be glued into the openings located 35 mm below the

upper outer edge of the panel at a distance of 1.5 - 3 metres apart. The grills should be assembled at the stage of gluing the glass-fibre mesh [diagram 5]. In order to make the opening, one should:

- 1) bore an opening in the external layer of the panel;
- 2) cut the mesh in the place where the opening was bored;
- 3) continue in accordance with the thin-coat plaster technology;
- 4) glue ventilation "mini grills" in the indicated places.

Such plastic sheet barriers should also be made beneath window openings in order to avoid water vapour penetrating the space under the window sill.



**Stage 8**

In buildings of more than one storey, horizontal barriers made of plastic sheet should be made identically as in case of single-storey buildings. The barriers should be located on the each storey.

**Stage 9**

For 80 mm thick insulation panels with internal ventilation system one should apply 40 mm long mini grills, while for 120 mm thick panels 80 mm long mini grills are used. These mini ventilation grills should be glued into previously made openings with a depth of 35 and 75 mm respectively.

Our official representative:

Izodom 2000 Polska  
 98-220 Zduńska Wola / ul. Ceramiczna 2  
 tel. (48) 43 823 41 88 / fax: (48) 43 823 23 68  
 e-mail: biuro@izodom2000polska.com  
 www.izodom2000polska.com