

# WALLS

IZODOM – POLISH TECHNOLOGY  
GLOBALLY RECOGNISED QUALITY



## IZODOM ADVANTAGES:

$U_o = 0,10 - 0,20 \text{ [W/m}^2\text{K]}$

- Innovation
- Energy efficiency
- Durability
- Fast construction
- Complete system

## FOUNDATIONS / WALLS / FLOORS / ROOFS

Complete system for construction of passive and energy efficient buildings  
certified by the Passive House Institute in Darmstadt

For better building

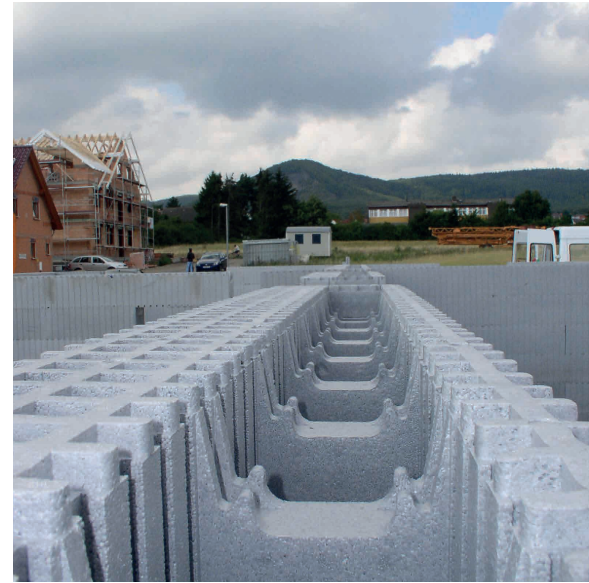
Walls for your house  
[www.passivehouseprice.com](http://www.passivehouseprice.com) [www.izodom.pl](http://www.izodom.pl)

# I

## DESCRIPTION

The innovative Izodom technology saves not only time but also money for both the contractor and the investor. Modern buildings constructed with the use of our products consume up to 90% less energy, which is confirmed by letters of reference obtained from customers from all over the world. We provide advice and assistance at every stage of construction. Our company acts with care for families and environment. We wish Izodom energy-efficient buildings to become a new standard in construction.

**From the foundation to the roof – we are there to make a better life for you!**

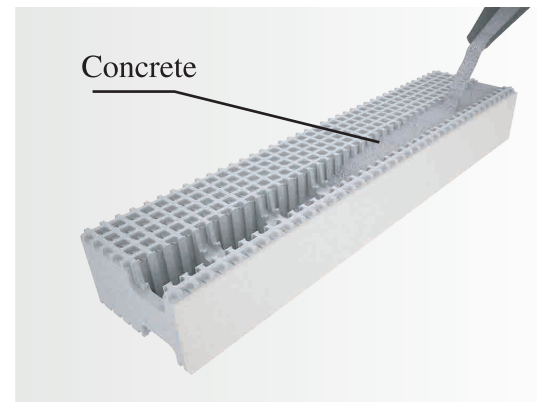


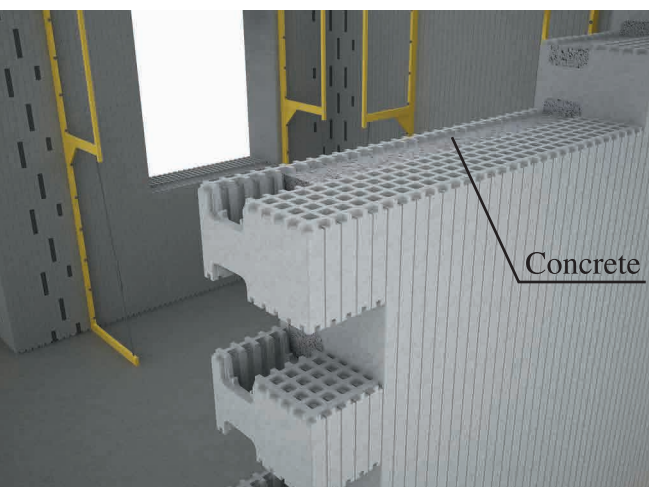
Wall elements manufactured by Izodom allow to build external and internal walls as well as partition walls. The company offers products in various insulation classes. They all have **space to be filled with concrete**. The walls are available in 3 concrete core thicknesses of 15, 20 and 25 cm. The Izodom technology comprises over 200 elements which can be joined as building blocks. With Izodom products you can erect all types of buildings: multi-storey blocks of flats, detached houses, schools, hospitals, hotels, production halls and even swimming pools.

## 2

## ADVANTAGES OF WALLS / WALL ELEMENTS

- Quick project completion – a house ready within 3 months
- Light components
- High energy efficiency
- Technology innovation





- Comfort
- A wall is a concrete construction with system insulation
- No thermal bridges
- Ease of execution
- System adapted to any design
- Reduced energy bills
- Durability of concrete structure
- Best quality

3.

## The only comprehensively tested and certified system

Izodom 2000 Polska walls


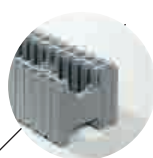

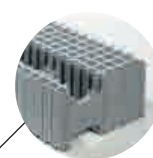
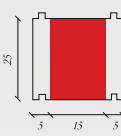
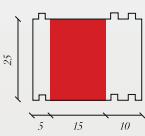
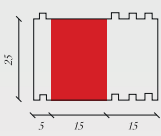
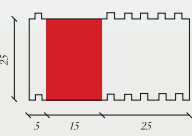
Essential characteristics for the intended use, for thermal insulation in construction	Declared performance, class or level	Test standard	Harmonised technical specification
Dimensional tolerance: thickness length width	T2 ( $\pm 0,8 \%$ ) L3 ( $\pm 0,8 \%$ ) W2 ( $\pm 2 \text{ mm}$ )	EN 823 EN 822 EN 822	ETA 07/0117
Declared thermal conductivity coefficient $\lambda$	$\leq 0,030 \text{ W/(m}^2\text{K)}$	EN 12667	
Apparent density $\rho$	$\geq 28,5 \text{ kg/m}^3$	EN 1602	
Reaction-to-fire class	EUROCLASS E	EN 11925-2	
Compressive stress at 10% deformation	CS(10)200 $\geq 200 \text{ kPa}$	EN 826	
Water vapour diffusion coefficient	MU60	EN 13163	
Resistance of the wall element to concrete pressure	Withstands tensile stress for 10 s at 0.40 bar	Test procedure PB-KJI-01	
Resistance to fire *	REI 120 and R 30	ETAG 009	

For years we have been delivering top quality construction products. We undergo continuous development in order to meet the requirements of the ever-changing market. Our company has been granted numerous international and national awards, which are the culmination of our efforts. The most important ones include: distinction of the European Commission, UN and the Minister of the Environment, Godło Teraz Polska, Diamenty Polskiej innowacyjności, Diamenty Forbesa, ISO and certificate of the Passive House Institute in Darmstadt.

# 3

## PRODUCTS

A complete system available in the company offer.  
Different wall thicknesses depending on the selected energy efficiency class.

SYSTEM	 STANDARD	 PRINCE BLOK	 KING BLOK	 SUPER KING BLOK
Element type	MC 2/25	MC 2/30	MC 2/35	MC 2/45
Wall thickness internal insulation / concrete core / external insulation	25 cm 5 / 15 / 5 cm	30 cm 5 / 15 / 10 cm	35 cm 5 / 15 / 15 cm	45 cm 5 / 15 / 25 cm
Wall cross-section				
Heat transfer coefficient (U)*	0,28 W/m <sup>2</sup> K	0,19 W/m <sup>2</sup> K	0,14 W/m <sup>2</sup> K	0,10 W/m <sup>2</sup> K
Energy efficiency class	Energy-efficient industrial buildings	improved	energy-efficient	passive
Benefits	fast construction	5% warmer than required in the 2021 standard, fast construction	30% warmer than required in the 2021 standard, fast construction	50% warmer than required in the 2021 standard, fast construction

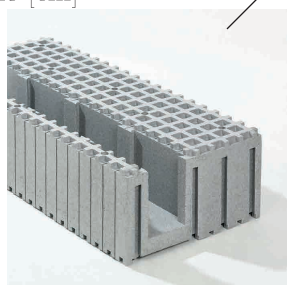
Izodom 2000 Polska walls

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\*BRAK TŁUMACZENIA TEGO FRAGMENTU



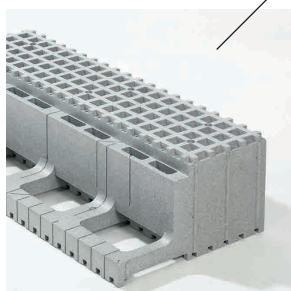
Basic element  
200 x 25 x 45 / 35 / 25 [cm]



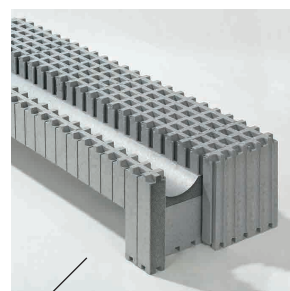
Header block  
200 x 25 x 45 / 35 / 25 [cm]

More than 200 building elements such as ready-made corners, header blocks or floor support elements for easier construction

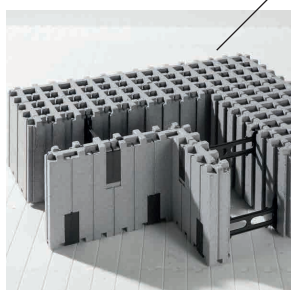




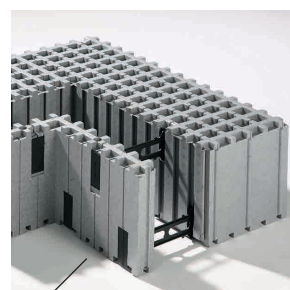
**Floor support element**  
200 x 25 x 45 / 35 / 25  
[cm]



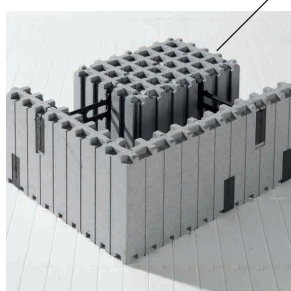
**Door header element**  
200 x 25 x 45 / 35 / 25  
[cm]



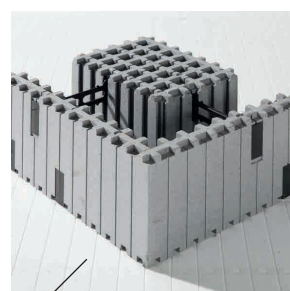
**90° corner,  
external, left**  
200 x 25 x 45 / 35 / 25  
[cm]



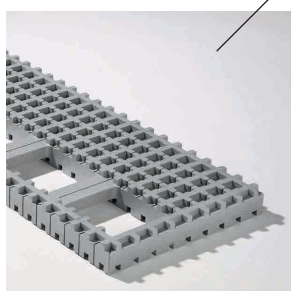
**90° corner,  
external, right**  
200 x 25 x 45 / 35 / 25  
[cm]



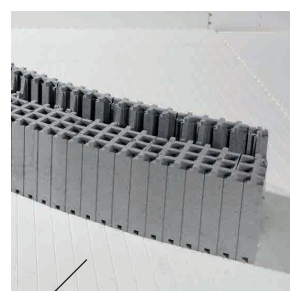
**90° corner,  
internal, left**  
200 x 25 x 45 / 35 / 25  
[cm]



**90° corner,  
internal, right**  
200 x 25 x 45 / 35 / 25  
[cm]



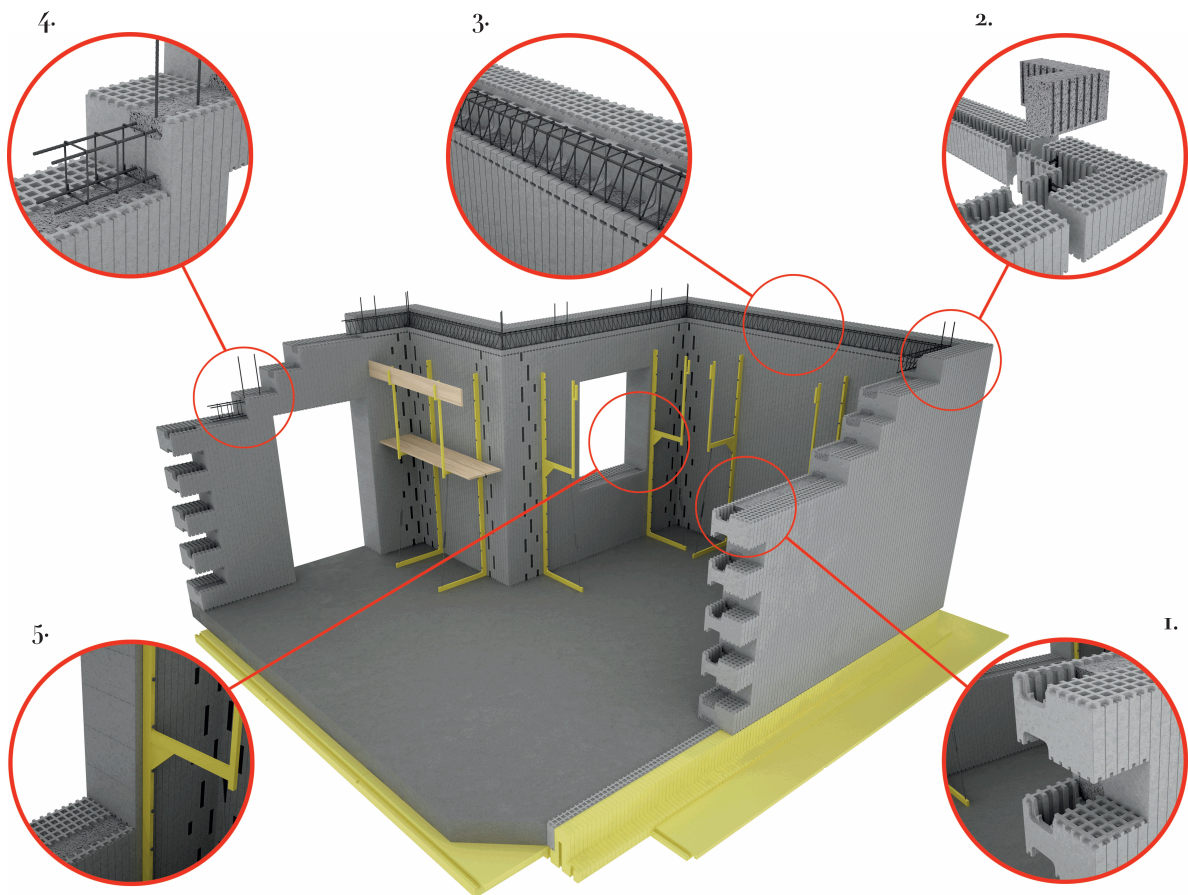
**Height adapter**  
200 x 25 x 45 / 35 / 25  
[cm]



**Curved elements**  
Available on request

## The complete system significantly facilitates and speeds up the construction process

1. Basic element – 45 cm thick wall – including 15 cm thick concrete core.
2. Ready-made external corner – fast and easy construction and no thermal bridges.
3. Floor support element – continuity of the ring beam plane insulation with wall insulation – ensures that there are no thermal bridges in this critical place.



4. Header element.
5. Insert elements for finishing.

Headers and plugs allow a comfortable and warm installation of windows and doors

The construction is very fast because the elements are lightweight and easy to process. 1 m<sup>2</sup> of a wall consists of two basic elements, i.e. an average of 3.6 kg/m<sup>2</sup> (while the concrete in the wall is 300 kg/m<sup>2</sup>)

## External walls

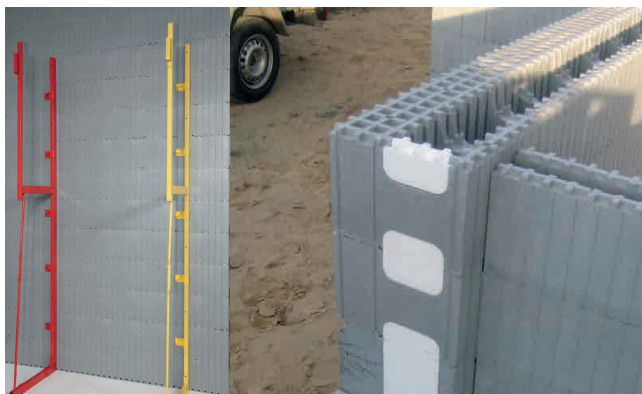
At the beginning of construction, the elements are placed on the ground slab. The external walls are to be reproduced around the building outline, the internal and partition wall elements being constructed at the same time. The elements are arranged in a staggering manner (like ordinary bricks). They are placed in a way similar to Lego blocks and then filled with concrete.

**For more information about the elements and the construction manual, refer to the Information Brochure published by Izodom. We also invite you to participate in free trainings in the company headquarters.**



## Supports

When the first layers of wall elements have already been placed and levelled, steel supports are attached to them (available in the company offer). They will facilitate the wall construction, ensure plane control and maintain the vertical orientation.



## Internal walls

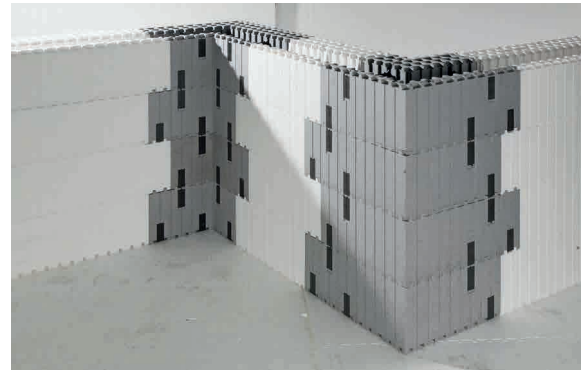
The elements are laid in a staggering manner and EPS is cut to size at the same time to allow for a monolithic connection of the two walls.





## Corners

The company offers ready-made corners. All corner elements are manufactured in two variants as left and right ones. One part of an element is longer to enable connection by overlapping with wall elements. External and internal corner element options are also available.



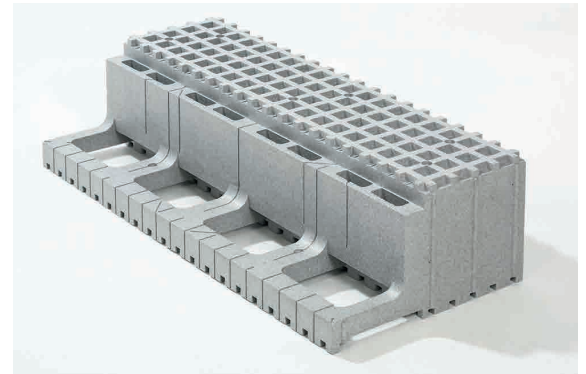
## Headers

To make the work on the construction easier and eliminate the formation of thermal bridges, the company also offers header elements - ready-made U-shaped formwork to be filled with reinforcement and concrete.



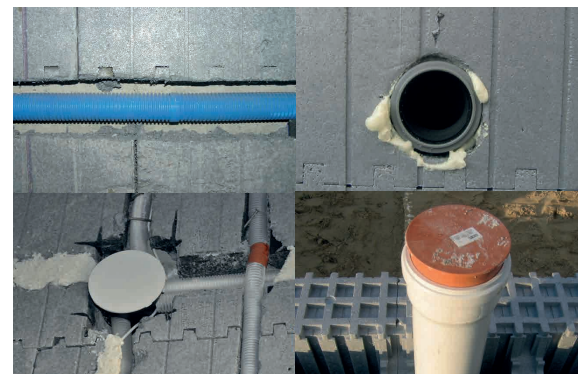
## Ring beam

To ensure continuity of thermal insulation at the point of contact between the floor and the walls, a floor support element is used, which additionally protects against the formation of thermal bridges.



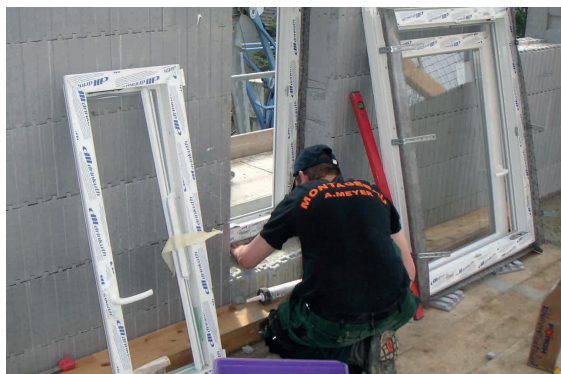
## Utility systems

Water and sewage risers should be arranged during the erection of the walls, before concreting, with additional reinforcement. Electrical installations are usually laid in grooves made in the inner layer of EPS with the thickness of 5 cm. Before wall finishing, the grooves should be filled with plaster or caulking foam.



## Windows and doors

Door and window frames are fixed to the wall concrete core with bolts of appropriate length. If energy efficiency is required, the frames should be inserted on a console into the plane of the external insulation layer, using layer sealing to ensure tightness. In addition, we can design the building so as to use the Izodom element to make the so-called jamb.



## Concrete pouring

The elements are suitable for concrete filling with a pump. The suggested height is 3 m, i.e. the height of one storey. Concreting the entire floor of a house with the area of 110 m<sup>2</sup> involves the use of 13 m<sup>3</sup> of concrete and takes less than 2 hours. Concrete should be poured in circular layers, 0.8 to 1 m high.



While pumping concrete at the feed rate of 6-9 m<sup>3</sup>/h, 40 to 70 m<sup>2</sup> of walls can be filled in just 1 hour.

## Internal and external finish work

Inside the house, we recommend the use of gypsum plasters with the thickness of at least 10 mm, applied directly on a primed wall. An equally popular solution is using a plasterboard fixed with pegs or adhesive. On the external side, any finishing materials can be applied, as in the conventional technology.



The most energy-efficient multi-storey residential building in the Baltic states was erected using the Izodom technology. Confirmed annual energy consumption is only 12 kWh/m<sup>2</sup>. In terms of the cost of domestic hot water and heating it is only GBP 1,05 per one square m per year.



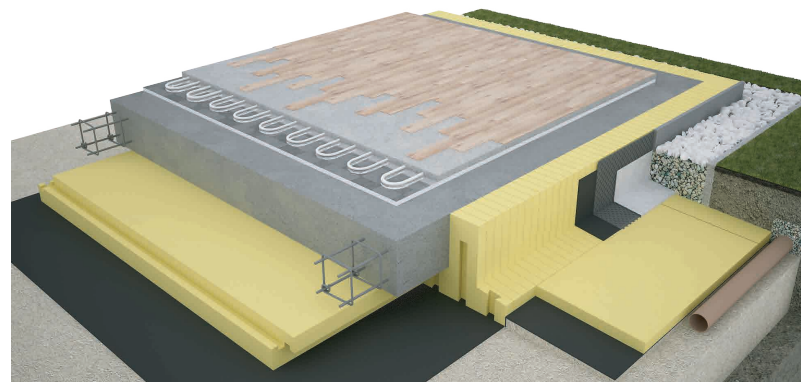
**Complete technology available in the company offer. Check out all our products - ask for a leaflet**

## GROUND SLAB

Izodom ground slab is a perfect alternative to the traditional foundations for your house. It is reinforced concrete poured into a formwork made of the hardest waterproof insulation material. Neither the shape of the slab nor the thickness of the thermal insulation constitute any limitation. The innovative Izodom technology saves not only time but also money for both the contractor and the investor. Modern buildings constructed with the use of our products consume up to 90% less energy,

which is confirmed by letters of reference obtained from customers from all over the world. We provide advice and assistance at every stage of construction. Our company acts with care for families and environment. We wish the energy-efficient buildings constructed in the Izodom 2000 technology to become a new standard in construction.

Foundations with IZODOM  
 $U_0 = 0,10-0,14 \text{ [W/m}^2\text{K]}$

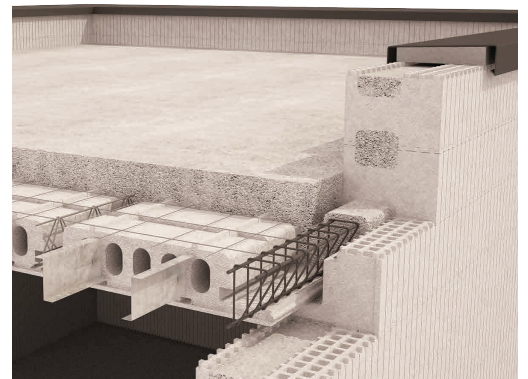


Izodom ground slab is used in the construction of traditional buildings, through wooden to modern structures.

## FLOORS

**Izodom floors are ultra-lightweight and thanks to their use the construction time is significantly reduced.**

Thanks to the floor shaped unit reinforced with metal sheets, floor assembly and execution are very easy. Reinforcing beams are placed between the rows of Izodom floor shaped units, and the reinforcement bar mesh is placed over them. It is enough to pour concrete mix on the structure prepared in such a way to enjoy a stable, monolithic concrete floor which is three times lighter than traditional solutions and at the same time very strong, durable and solid. The floor can carry loads up to 16 kN/m<sup>2</sup>, which is equal to 1.6 ton/m<sup>2</sup>.



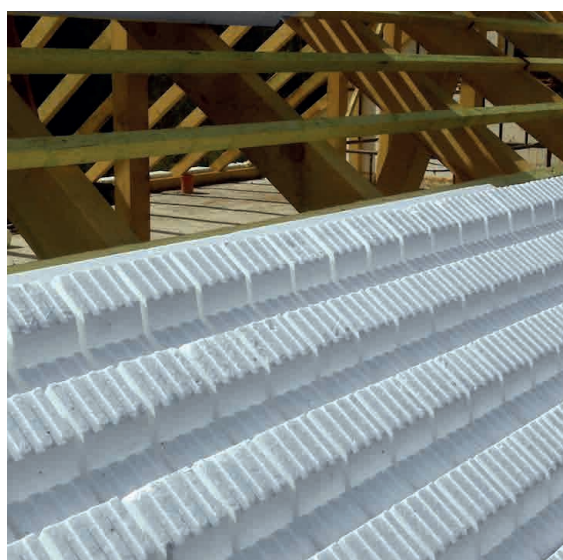
# ROOF SLAB



II.

Izodom 2000 Polska walls

Izodom roof slab has not only one, but two applications – it is designed to insulate wooden roofs of rafter construction, and also allows to insulate flat roofs and slab roofs of reinforced concrete construction. Our innovative solution, provided with perimeter hook locks, makes it very easy to join adjacent slabs together. A precise connection eliminates thermal bridges, which are created at the contact point of classic EPS panels.



Grooves allow surface drainage of condensate and water



European  
Funds  
Smart Growth



Republic  
of Poland



European Union  
European Regional  
Development Fund



# IZODOM 2000 POLSKA IS THE ONLY MANUFACTURER ON THE MARKET OFFERING A COMPLETE TECHNOLOGY



## Roof slabs

$U = 0,11-0,15 \text{ W/m}^2\text{K}$

## Floors

$U = 0,26-0,32 \text{ W/m}^2\text{K}$

## Wall elements

$U = 0,10-0,20 \text{ W/m}^2\text{K}$

## Ground slab

$U = 0,10 - 0,14 \text{ W/m}^2\text{K}$

Izodom 2000 Polska walls

r2.

## Benefits

+ **reliability**

+ **accuracy**

+ **durability**

+ **no waste generated**

+ **no thermal bridges**

We have more than **19,000 reference buildings** around the world - from the Middle East, through Norway and Western Europe to Nepal and New Zealand.

**Thousands of investors have trusted us.  
Be one of them!**

**IZODOM 2000 POLSKA SP. Z O.O.**  
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IZODOM Energy  
Saving Houses

