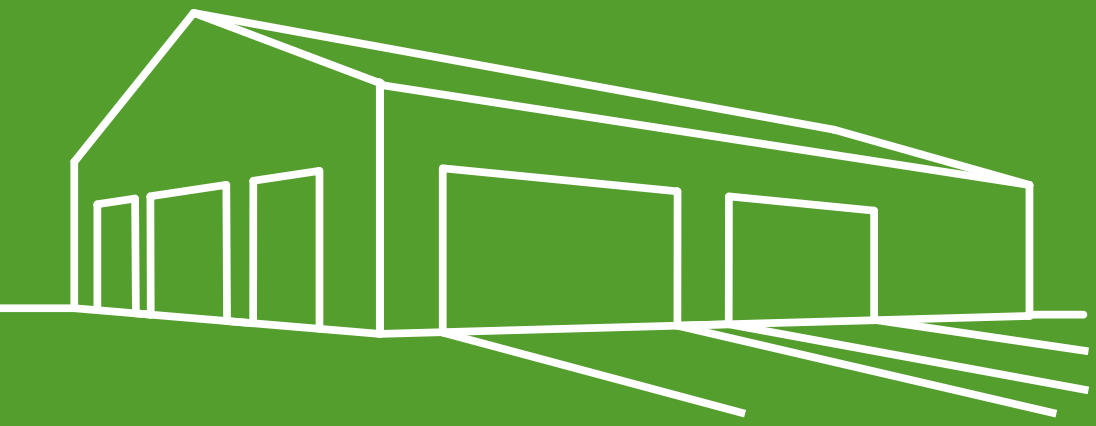
Product catalog

Izodom 2000 Polska

izodom 2000 polska®

Complete construction system
Ideal for passive construction



www.izodom2000polska.com

CE

TÜVRheinland® CERT ISO 9001

Wstęp

Dear Sirs,

We present you our new catalogue of the Izodom 2000 Polska Products.

Izodom was established in 1999 and is a family company managed by Andrzej Wójcik. At the beginning we were manufacturing eight basic tiles for the building industry, exclusively from white styrofoam. Over many years of our activity, owing to our intensive work, we have extended our offer up to more than one hundred products for the building industry, more than ten types of special insulation boards for walls, roofs and foundations, as well as we are the manufacturer of a number of other special purpose styrofoam tiles. We manufacture our products from modern types of raw materials of the highest international quality, namely EPS, Neopor and Peripor.

Presently, with regard to the number of the products offered, we are the largest European manufacturer of styrofoam hollow blocks and accessories, and the only company offering products for complete building insulation – walls, floors, roofs and foundations! Our products have been granted with many national and international awards and owing to continuous innovative activities we possess many patents and registered utility designs for our solutions. The building products of Izodom posses the prestigious CE marking, confirming the conformity with the highest standards of the European Union.

We form a good team of building specialists. There aren't many of us but we are all passionate about what we do while achieving great results. Professionalism, quality assurance, innovativeness and a family atmosphere at work - that's who WE are!

Technology

Permanent structure and energy-savings

Izodom building technology, the so-called "permanent formwork", can be simplified to erection of permanent concrete or reinforced concrete structures at the construction site. The formwork to which concrete is poured are the Izodom tiles made of hard insulating materials. Formwork components are not removed as in case of standard solutions – they are left to insulate the newly built wall, from inside and outside.

Izodom offers sets of elements with various thicknesses of insulating layers and with various thicknesses of concrete core.

By selecting proper types of formwork components, type of concrete as well as proper reinforcement in some cases, it is possible to erect all types of buildings from Izodom elements: multi-storey apartment buildings, energy-saving single family houses, public utility structures, pools, industrial buildings, cooling stores and freezers, etc. It is worth pointing out that the European regulations do not impose any limits as to the structure height on the technology. While erecting extremely high structures the designer must only select proper type of concrete, reinforcement and elements with the core of greater width. The highest structures built using the Izodom technology are eleven-storey apartment buildings. The Izodom system is suited for building at seismic risk regions. When designing a structure at such a region one can use the special Informational Brochure prepared by us.

Zróżnicowane grubości ścianek elementów umożliwiają wznoszenie budynków w trzech klasach energooszczędności.

One cubic meter of concrete allows to built 8 square meters of wall. The Izodom hollow blocks are large, light and it is possible to erect more than 4.5 square maters of wall within only one hour of work when filling them with concrete delivered by a pump! This results from the fact that the basic Izodom "brick" is 0.5 m^2 and its weight before concreting is less than 2 kg! This result cannot be achieved with other energy-saving technologies. It is worth highlighting that the walls made of styrofoam hollow blocks have very good insulating properties, at small widths of partitions. Building a house of 140m^2 surface area from warm elements of Izodom enables to generate additionally even 5.4m^2 of usable area.

The offer includes special elements of increased fire resistance, meeting the strict fire standards for building schools, nursery schools, hospitals, hotels, etc.

The services are conducted in the wall core, before concreting. Any electrical cables can be distributed in a room by laying them in the grooves cut in the foamed wall and then covering them under finishing layer. We recommend to apply drywalls or mechanically applied gypsum plasters as internal finish. Tin layer plasters, clinker or stone cladding are the most frequently used external finishes.

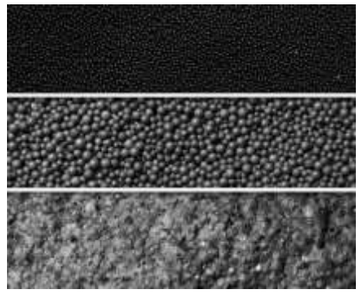
Installing heavy components [e.g. kitchen cupboards] on the walls as well as installing windows and doors needs the application of proper long expansion bolts screwed into the concrete core of the wall. One bolt with the length of 150mm, diameter of 8mm, anchored in concrete to the depth of only 100mm has the lifting capacity greater than 150kg!

Wall thickness	Type of element	Heat transmission coefficient	Energy-saving class
25 cm	MC 2/25	0,28 W/m^2K	Standard
35 cm	MC 2/35	0,16 W/m^2K	Energy-saving
45 cm	MC 2/45	0,1 W/m^2K	Passive

Diversified wall thickness of the elements allows to erect buildings in three energy-saving classes.

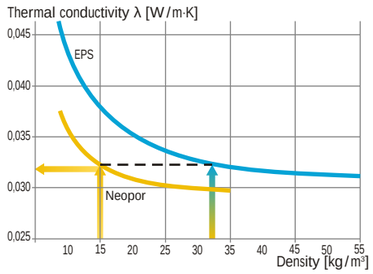
Raw material

Raw material – for many years we have been working using only raw materials from the leading chemical industry company, namely - BASF. We apply hard, white EPS, grey Neopor with better insulating properties, as well as Peripor – the raw material of minimum water absorption.

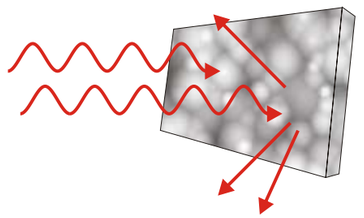


Granulate, styrofoam pellets after foaming, raw material in finished product.

Owing to graphite addition and retention of heat loss by radiation, Neopor has better insulating properties than EPS, maintaining the same density. Due to the above the ideally insulated walls do not have to be very wide.



Neopor insulates very efficiently, since it does not permit heat loss neither by conduction or radiation. Heat does not escape from the building in the form of heat radiation – it is closed inside.



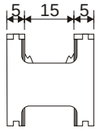
Partner companies

We have a network of partner companies in many countries supporting the energy-saving building designs. You can find the contact data of our representative at the back of our catalogue, or you can ask us for arranging a call with an expert from your country/region. Our partners will help you in finding the best solutions for your needs, present the best offer and provide transport of materials and services. The highest quality and at friendly prices.

BASF
The Chemical Company

Grubość rdzenia		Grubość izolacji	
15 cm	20 cm	wewn.	zewn.
MCF 1/25 MC 2/25	MCF 1/30 MCFU 2/30	5 cm	5 cm
MCFU 1/35 MC 2/35	MCFU 2/40	5 cm	15 cm
MC 2/45	MCF 1/50 MCFU 2/50	5 cm	25 cm

Elements for house construction



Available raw materials: NEO/ EPS
NEO U_0=0,28 W/m^{2}K
EPS U_0=0,29 W/m^{2}K

MC 2/25
Basic element
200 x 25 x 25 [cm]

MC 1/25
Basic element
100 x 25 x 25 [cm]

MCF 1/25
Basic element with plastic tie
100 x 25 x 25 [cm]

MCF 0,7/25
Hinge element with plastic tie
70 x 25 x 25 [cm]

MCF 1/15
Partition wall element
100 x 25 x 15 [cm]

ML 1/25
Header block
100 x 25 x 25 [cm]

MP 1/25
Floor support element
100 x 25 x 25 [cm]

MH 1/25
Height adjustment
100 x 5 x 25 [cm]

MHF 0,7/25
Height adjustment
70 x 5 x 25 [cm]

MLA 1,2/25
Header block
120 x 25 x 25 [cm]

MCF 1/25 EL
45° Corner element with plastic ties (left) 100 x 25 x 25 [cm]

MCF 1/25 ER
45° Corner element with plastic ties (right) 100 x 25 x 25 [cm]

MC 1/25 EL
45° Corner element (left)
100 x 25 x 25 [cm]

MC 1/25 ER
45° Corner element (right)
100 x 25 x 25 [cm]

ML 25 E
45° Corner header element
100 x 25 x 25 [cm]

MP 25 EA
45° Floor support element (external) 200 x 25 x 25 [cm]

MP 25 EI
45° Floor support element (internal) 200 x 25 x 25 [cm]

MCB 1/25
Element for swimming pools construction 100 x 25 x 25 [cm]

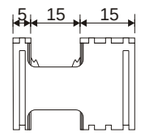
MH 1/25 E
Height adjustment
200 x 25 x 25 [cm]

MR 25
Shutter box
25 x 25 [cm]

Elements for house construction

KING BLOK

Available raw materials: NEO/ EPS
NEO U_0=0,15 W/m^{2}K
EPS U_0=0,16 W/m^{2}K



MC 1/35
Basic element
120 x 25 x 35 [cm]

MC 2/35
Basic element
200 x 25 x 35 [cm]

ML 1/35
Header block
100 x 25 x 35 [cm]

MP 1/35

Floor support element
100 x 25 x 35 [cm]

MLA 1,2/35

Header block
120 x 25 x 35 [cm]

MCFU 35 EA/R

45° Corner element (external/ right) 93,6 x 25 x 35 [cm]

MCFU 35 EA/L

45° Corner element (external/ left) 93,6 x 25 x 35 [cm]

MCFU 35 EI/R

45° Corner element (internal/ right) 93,6 x 25 x 35 [cm]

MCFU 35 EI/L

45° Corner element (internal/ left) 93,6 x 25 x 35 [cm]

MH 35 EA

Height adjuster (external)
93,6 x 25 x 35 [cm]

MH 35 EI

Height adjuster (internal)
93,6 x 25 x 35 [cm]

MP 1/35 EA

45° Corner of floor support el. (external) 93,6 x 25 x 35 [cm]

MP 1/35 EI

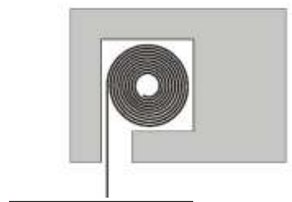
45° Corner of floor support el. (internal) 93,6 x 25 x 35 [cm]

ML 1/35 EA

45° Corner of header element (external) 93,6 x 25 x 35 [cm]

ML 1/35 EI

45° Corner of header element (internal) 93,6 x 25 x 35 [cm]



MR 35

Shutter box
25 x 35 [cm]

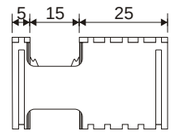
MH 1/35

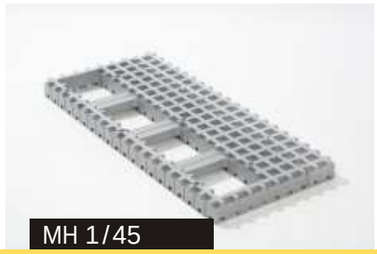
Height adjustment
100 x 5 x 35 [cm]

Elements for house construction

SUPER KING BLOK

Available raw materials: NEO/ EPS
NEO U_0= 0,10 W/m^{2}K
EPS U_0= 0,11 W/m^{2}K





MH 1/45

Height adjustment
100 x 5 x 45 [cm]

MC 1/45

Basic element
100 x 25 x 45 [cm]

MC 2/45

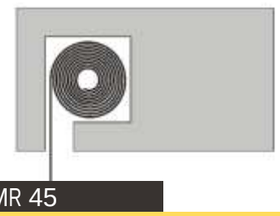
Basic element
200 x 25 x 45 [cm]

ML 1/45

Header hollow block
100 x 25 x 45 [cm]

MP 1/45

Floor support element
100 x 25 x 45 [cm]



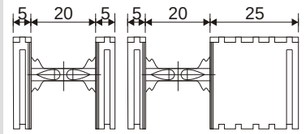
MR 45

Shutter box
25 x 45 [cm]

Elements for house construction

SUPER KING BLOK PLUS

Available raw materials: NEO/ EPS
NEO U_0= 0,10 W/m^{2}K
EPS U_0= 0,11 W/m^{2}K



MCF 1/30

Basic element
100 x 25 x 30 [cm]

MCF 1/50

Basic element
100 x 25 x 50 [cm]

MCF 1/30 EL

45° Corner element (left)
100 x 25 x 30 [cm]

MCF 1/30 ER

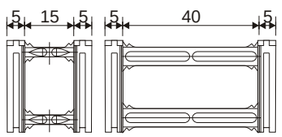
45° Corner element (right)
100 x 25 x 30 [cm]

Informational Brochures

We posses Informational Brochures prepared by the Technical University of Lodz intended for architects and building engineers. They make it easier to design ceilings and walls of houses, buildings, industrial structures, warehouses, halls and pools. We also possess materials for those who design at seismic risk zones. We deliver them free of charge to all interested persons.

UNIVERSAL

Elements for house construction



Available raw materials: NEO / EPS
NEO U_0= 0,29 W/m^{2}K
EPS U_0= 0,30 W/m^{2}K

MCFU 1/25

Block with plastic tie
100 x 25 x 25 [cm]

MCFU 2/25

Block with plastic tie
200 x 25 x 25 [cm]

MCFU 1/35

Block with plastic tie
100 x 25 x 35 [cm]

MCFU 2/35

Block with plastic tie
200 x 25 x 35 [cm]

MCFU 1/50

Block with plastic tie
100 x 25 x 50 [cm]

MCFU 2/50

Block with plastic tie
200 x 25 x 50 [cm]

MCFU 2/45

Block with plastic tie
200 x 25 x 45 [cm]

* MCFU

MCFU elements prepared
to transport

* MCFU

MCFU elements during
assembling

Elements for house construction

UNIVERSAL PLUS

Available raw materials: NEO / EPS

MCFU 2/30+

Block with plastic tie
200 x 25 x 30 [cm]

MCFU 2/40+

Block with plastic tie
200 x 25 x 40 [cm]

MCFU 2/50+

Block with plastic tie
200 x 25 x 50 [cm]

Elements for house construction

ADDITIONAL ELEMENTS

Available raw materials: NEO / EPS

OH

Upper plug
15 x 10 x 5 [cm]

OB

Bottom plug
15 x 8 x 5 [cm]

OC

Drawer element
15 x 25 x 5 [cm]

OC BIS

Drawer element
15 x 25 x 10 [cm]

OC 0,2/1

Drawer element
20 x 25 x 5 [cm]

OC 0,2/2

Drawer element
20 x 25 x 10 [cm]

OC 0,4/2

Drawer element
40 x 25 x 10 [cm]

MD

Complementary element
100 x 25 x 10 [cm]

MHD 1/10

Height adjuster of MD 1/10
100 x 5 x 10 [cm]

LWG \ LWD

Upper \bottom trimming strippe
100 x 2,5 x 5 [cm]

MLIP 15

Bottom of the lintel element

MLIP 15

Example of lintel bottom application

STP

Floor hollow block
75 x 25 x 20 [cm]

STK

Floor terminal hollow block
75 x 25 x 20 [cm]

STN

Cover element
100 x 60 x 5 [cm]

STP

Span up to 5,5m, h. 25cm
concrete consumption 70L/m²

STP + STN

Span up to 6,6m, h. 30cm
concrete consumption 80L/m²

STP + 2xSTN

Span up to 7,8m, h. 35cm
concrete consumption 90L/m²

Available raw materials: NEO/ EPS
U_0= 0,27 - 0,34 W/m²K
U_0= 0,26 - 0,32 W/m²K

Ceiling beam anchoring at coping
– no thermal bridges

STP b

Floor band shuttering, every
75 cm

STP c

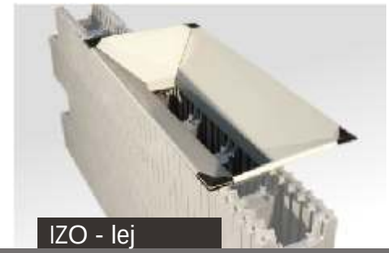
View of rib-and-slab ceiling design

IZO/KJ

V-shaped trusses
3,6 m - 7,8 m.

The light and warm Izodom ceilings are built by placing reinforcing beams between the rows of ceiling tiles and pouring concrete over them. At the top a ceiling slab is formed, supported on the reinforced concrete beams anchored in load-carrying walls. The carrying capacity of the ceiling is adjusted by the height of beams (number of STN components), quantity of reinforcing components and concrete quality. Typically the maximum span of floors amounts to 7.8m. Concrete consumption is only 70-90L/m². The slab is reinforced with tin wire mesh. The ceilings are designed in such a way to perfectly co-operate with the wall elements, though they can be applied successfully at the buildings erected in other technologies. M².
More details see Informational Brochure "Ceilings".

Funnel for concrete facilitates the hollow units filling with concrete and protects the component teeth from damage simultaneously. Supports – galvanized or painted supports stiffen the wall during concreting. Additionally it is possible to order the clamps fixing the supports to walls and floor as well as bolts facilitating the bolt mounting in foamed polystyrene.



IZO - lej

Funnel for concrete

IZO SUP H270

Wall support element
Height 270 [cm]

Example of support application

IZO SUP H450

Wall support element
Height 450 [cm]

SUP PRO

Support prolongation

Construction stages

Let us look at the exemplary building with the surface area of 150m^2.
The building was made in the passive construction standard from Neopor 45 cm tiles.

The time of the completing of the building shell – 6 weeks.

Stage 1
Insulating foundation slab

Stage 2
Placement of elements

Stage 3
Plumbing vents are mounted in the core of the elements

Stage 4
Concreting with a pump up to the height of one storey

Stage 5
Floor elements ready to pour concrete

Stage 6
Electrical wiring in grooves

Stage 7
Internal gypsum plaster applied mechanically

Stage 9
Passive house

Stage 8
Facade – tin layer plaster

Here you can find photographs of several exemplary buildings erected according to our technology. Low and high buildings, with and w/o cellars; within regions with cold and hot climate.

France

Poland

Russia

Lithuania

Belgium

The United Arab Emirates

Austria

Poland

The Netherlands

Germany

Norway

Certyficates

ISO

ISO 9001:2008, Quality Certificate; for more than 10 years it has been confirming the highest quality of our products

CE

European Technical Approval: ETA 07/0117, obtained by us in German Building Engineering Institute in Berlin comprises the basis for CE marking and authorizes us to apply that system in the countries of the European Union. The technology has also the French DTA document. Those documents are appreciated also at the Middle-East, South America and Africa

Innovations

We constantly improve the usability of our products by finding new forms and technological solutions. Izodom 2000 Polska possesses a number of original solutions and improvements of styrofoam tiles and special thermal insulation boards, protected with more than ten patents and restricted utility design.

We are ready to manufacture other tiles from hard foamed plastic: decorative components, packaging, boxes for transportation of frozen products, any type of styrofoam fillers. We can also design and produce moulds for manufacturing the products customized to the needs of our Customers.

Ecology

Emissions

Our building technology, similarly to the production process is environment-friendly. When manufacturing our building elements we do not use any harmful substances. The post-production remaining elements are trace quantities of CO^2 and water vapour. Using styrofoam hollow blocks for building a house considerably diminishes heating energy consumption that can be translated into reduced emission of carbon dioxide and dust to air. The fact that the elements necessary to built a single-family house can be transported with one truck is important for the "total CO^2 emission volume" connected with construction. Possible exact calculation of necessary tile amount for building a special structure minimizes the quantity of waste removed from the construction site. The lack of necessity to built complicated formwork decreases wood consumption and minimizes the quantity of waste generated at the construction site.

Recycling

The elements manufactured by us are made from the highest quality raw materials that can be reused as base raw material in manufacturing new products or as a precious additive for concrete.

Savings

Energy-savings

The main benefit of this technology is the obtained building energy-savings – even up to 80% in comparison to standard technologies.
The thicker external insulation layer the less expenditures for heating the building. When thinking of the future, it is worth investing in good insulation. Now, the standard solution in Europe are 35 cm thick walls made of Neopor ($U=0.15W/m^2K$). Savings in energy costs are considerable, regular and long-term. Every year, our Customers analyzing the building heating costs are delighted with progressing return on investment in the energy-saving building technology of Izodom. When considering the appropriate technology selection please ask our competitors about the heat transmission coefficient of the walls offered by them as well as about partition thickness, thermal bridges and total cost of materials and labour. There is no competition for us!

Time saving

Sophisticated design of our elements allows their easy assembling – just like LEGO bricks – large extent of shortening of the time of building in comparison to the standard construction. The experienced team is able to assembly and concrete more than four and half square meters of the wall within one hour! The basic concept of this technology is the construction of one storey in 24 hours!

During our many-years of activity we are present on the markets of the most of European countries and at United Arab Emirates, Morocco, Russia, Brazil, Turkey, Libya, Kazakhstan, Venezuela, Panama, Bolivia, Sudan, Republic of South Africa, Cyprus, Tunisia and Saudi Arabia.

Use

Durability

Izodom building elements and structures erected using the above are extremely durable. As far as the tiles are not exposed to the temperatures above 90^oC and contact with organic solvents – they will remain an excellent insulator for years. The hollow blocks are resistant to frost, humidity, intensive sun radiation and salt. Since it is not an organic material any mildew and moulds cannot develop therein. Covering external walls with the finishing layer such as plaster, clinker, facade stoneware, suspended system facades prevents them from the presence of rodents and insects as well as makes the facade resistant to impacts while birds cannot damage the insulating layer.

It is worth noting that the research works of German scientists have revealed that concrete structures poured into the styrofoam hollow blocks maintain their mechanical properties much longer in comparison with the standard concrete structures. This results from the fact that the concrete load bearing wall is protected from weather conditions very well in that case. The oldest buildings made in the permanent formwork technology have more than 60 years and their structure as well as the insulating tiles do not reveal any visible signs of ageing.

Solid buildings made in permanent formwork technology in the USA have obtained the hurricane proof certificate, since the massive concrete wall protects from the destroying activity of the hurricane a lot better than the standard technologies.

Comfort

Our house construction technology together with gravity ventilation system and correctly matched heating system enable to create extremely healthy apartment microclimate. It is warm in the winter season and cool in the summer season with ideal humidity conditions inside.

Services

Typical design

Izodom 2000 Polska, similarly to the partner companies, offers catalogues of typical single-family houses that can be purchased. At the same time we cooperate with a number of designer offices and thus we can help in preparation of complete documentations as per customer guidelines.

Adaptation of ready-made designs

Having in mind the energy and cost savings, the Customers possessing the designs based on a standard technology often decide to replace them with Izodom technology. In such case it is necessary to ask the designer, architect or the site manager to introduce such replacement, or you can also ask our representative for assistance. In most cases such replacement does not require any additional design calculations. At the design analysis stage the engineers may find our free of charge Informational Brochures helpful.

Performance

We have our own team of specialists building with our technology as well as a number of partner companies in various countries able to implement the investments in a professional manner.

Training

We can offer training sessions for building companies, designer offices and designers interested to know the details of our construction system, conducted at the seat of our company or at our representatives' offices. We can arrange training for building experts performed by the employees of the Technical University of Lodz. If necessary, we conduct training at the construction site, often in foreign languages and also abroad and out of Europe – please contact us to discuss the details.

Transport

Small size

Owing to proper arrangement of our tiles during transportation an excellent space management is possible. In case of medium-sized houses (ca. $150m^2$) it is possible to ship all wall and ceiling elements with only one truck.

Delivery

We posses two truck sets for large-sized loads for transportation of our components. We can deliver the elements to the construction site in Poland on the customer request.

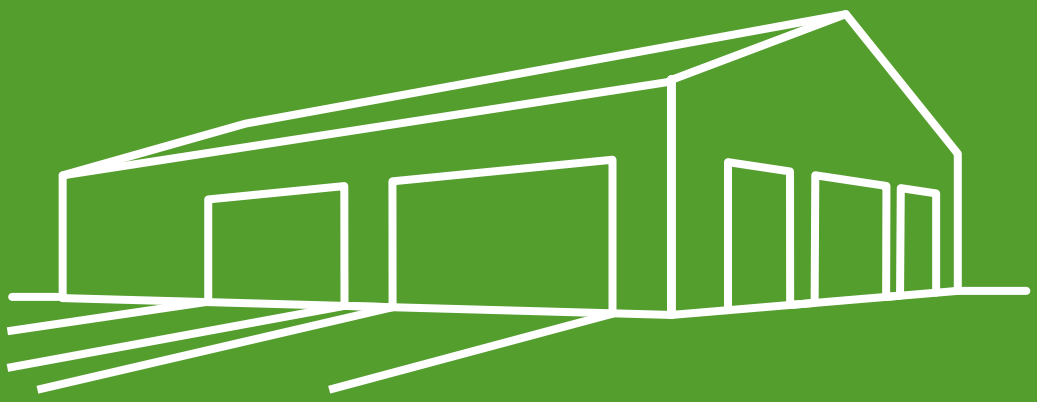
At large orders we perform domestic transport free of charge - when ordering the components you will find out whether we deliver the elements to you free of charge too!

Material dispatch

We can organize transport of our elements to any place in Europe and in the world for our foreign customers. The delivery of elements to the construction site distanced by 1400 km e.g. to Belgium – from ordering to unloading takes ca. 72 hours. One 40"HC container can contain more than $530m^2$ of MCFU type walls which allows for minimizing the transport costs. The said solution is well appreciated by our customers from South America, Middle-East and Africa.

Ask about informational materials about other products:
- Insulating elements for roofs,
- "Perimeteric" boards - drainage insulation boards for underground walls
- Insulating boards for foundation walls
- Special "breathing" boards – drying and insulating old, moisturized overground structures
- Special insulating boards intended for clinker facades

izodom 2000 polska®



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