FOR 30 years
CLOSER TO YOU

KOTAR
MANUFACTURER OF INSULATION MATERIALS

THERMAL INSULATION MATERIALS FOR YOUR HOME

INSULATION BOARDS | INSULATION FOILS | SYSTEM BOARDS | EDGE STRIPS

PRODUCT CATALOGUE

KOTAR is a family company with **30 years** of experience in the floor heating systems market and dealing in the production of KR system boards, EPS boards, insulation foils, edge tapes and floor heating accessories.

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KOTAR PRODUCTS ARE DISTRIBUTED IN 20 COUNTRIES IN EUROPE AND ASIA.

Kotar systems are available not only in Poland but also in neighbouring countries:

Germany, Czech Republic, Slovakia, Ukraine, Belarus and Lithuania, Sweden, Spain, Italy, Austria, Romania, Slovenia, Norway, Finland, Bosnia, the Netherlands, Great Britain, Denmark, Hungary, Belgium, Moldova, Lebanon and Tajikistan.

Overprint for easy assembly

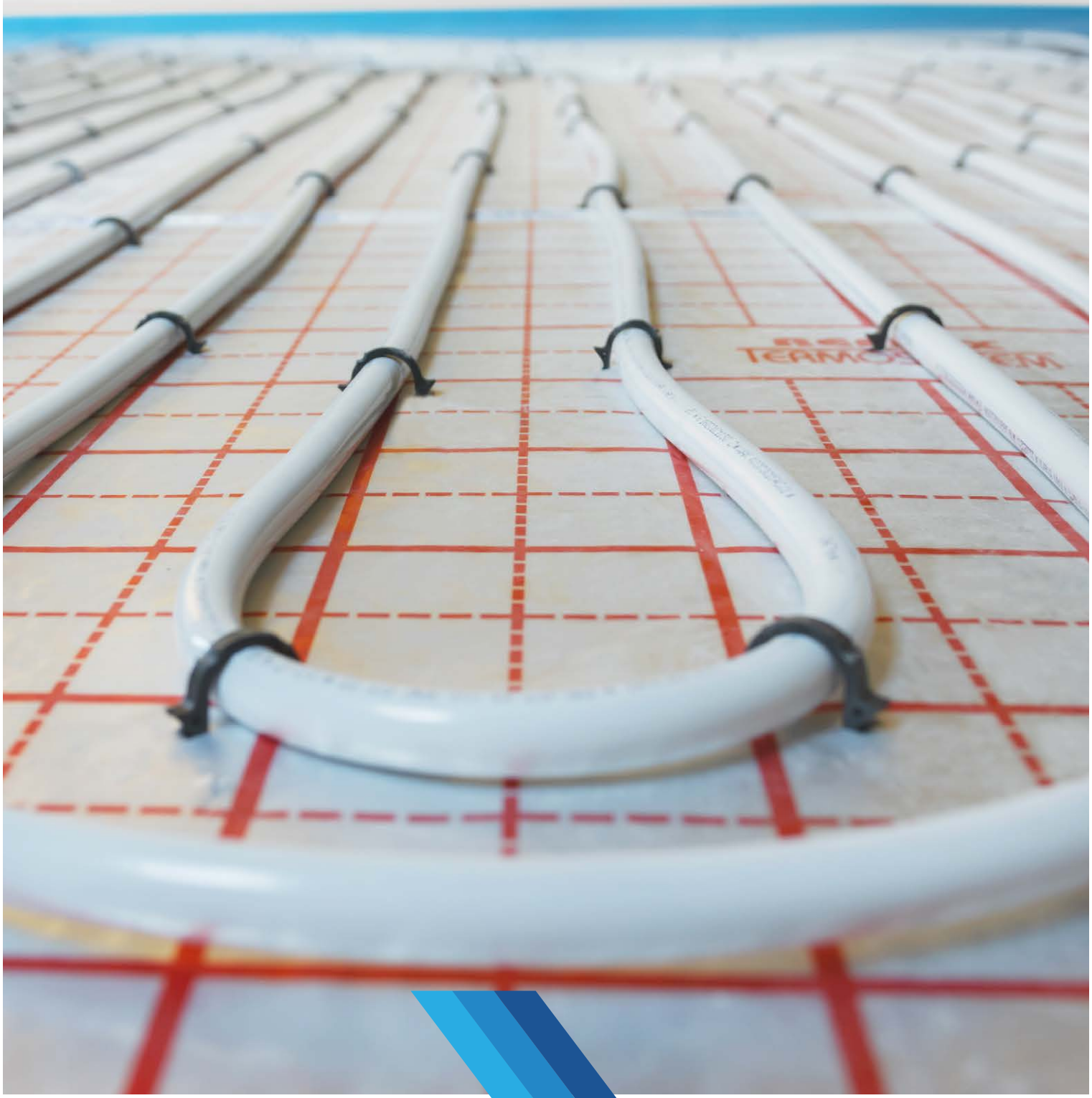
Pipe fixing using clamps

Quick assembly

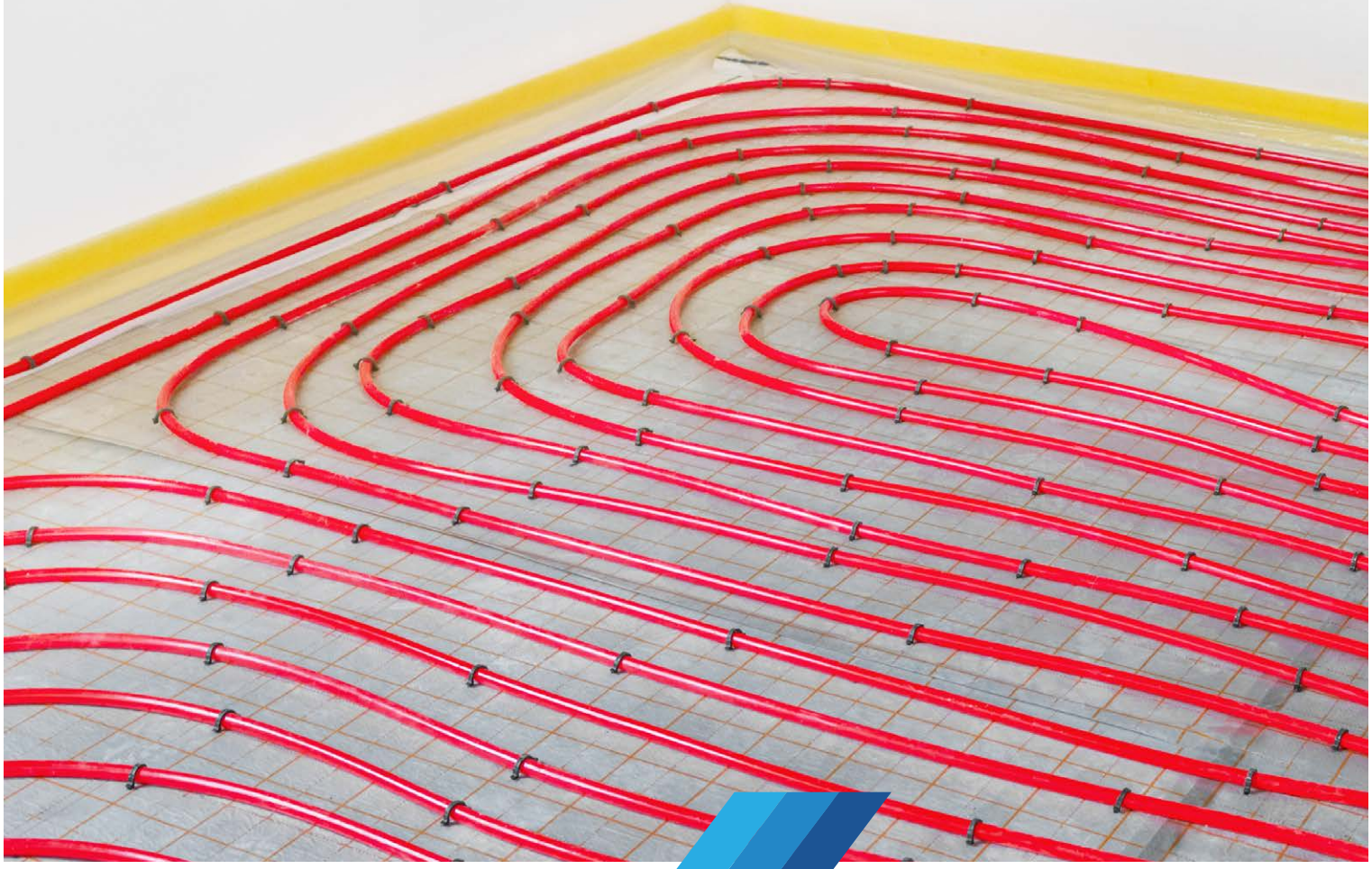
Heavy-duty fabrics

INSULATION BOARDS

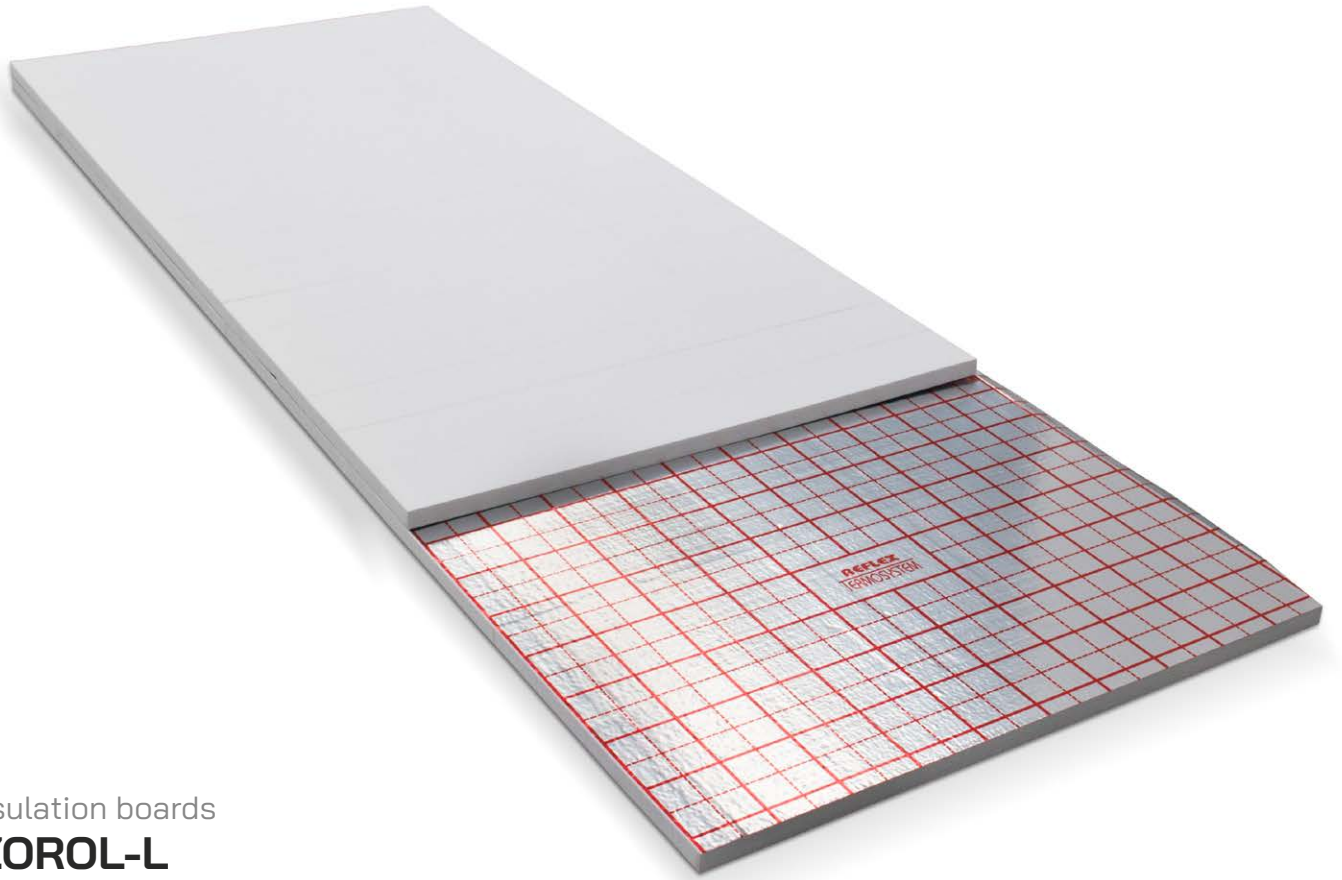
The boards are used as thermal, acoustic and damp insulation in water floor heating systems in residential buildings as well as public utilities.



To facilitate mounting heating pipes the top surface has imprint of straight, dotted and dashed lines.



The boards are wrapped in PE foil that protects the boards against damage during transport and storage.



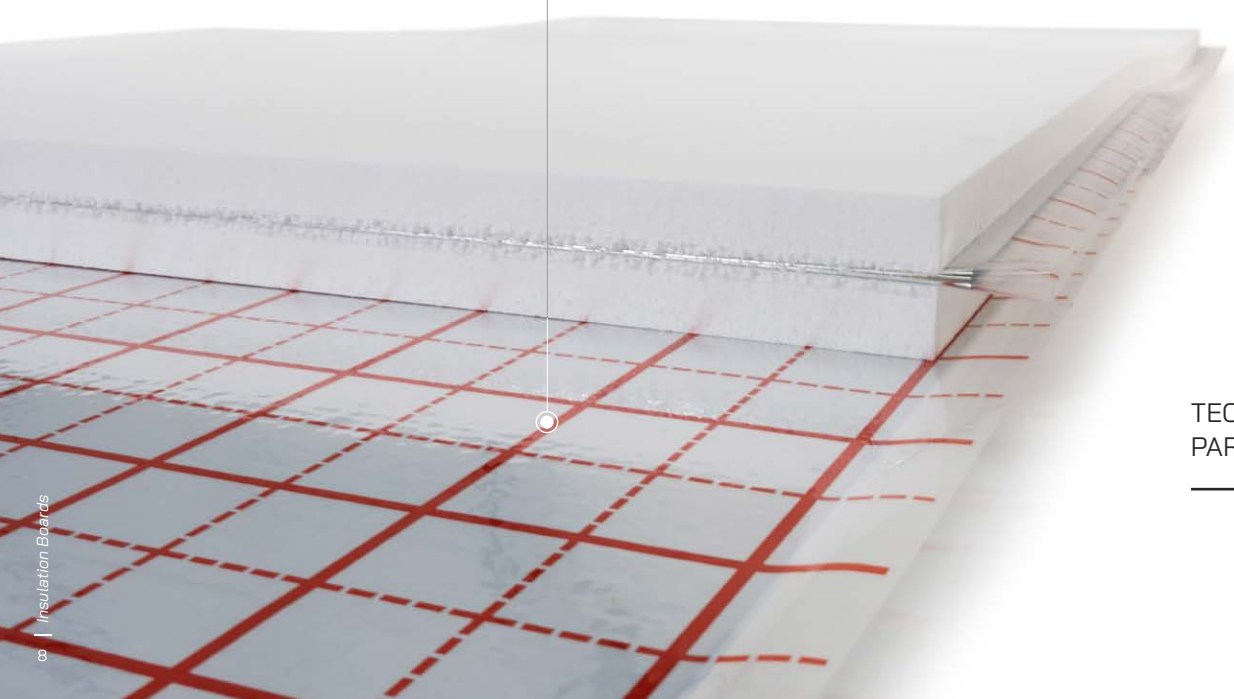
Insulation boards

IZOROL-L

The boards are made of bands of expanded polystyrene covered on one sided with multilayered 0,13 mm thick laminate with aluminium film inside - the IZOROL foil.

To facilitate mounting heating pipes the top surface has imprint of straight, dotted and dashed lines.

Length:	Width:	Thickness:
5m	**1m**	**25mm, 30mm or 50mm**



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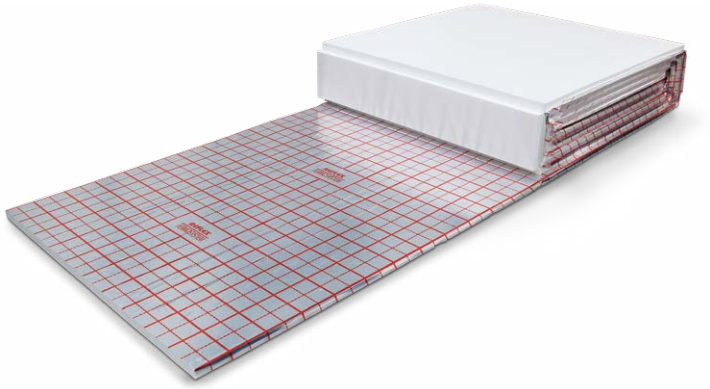


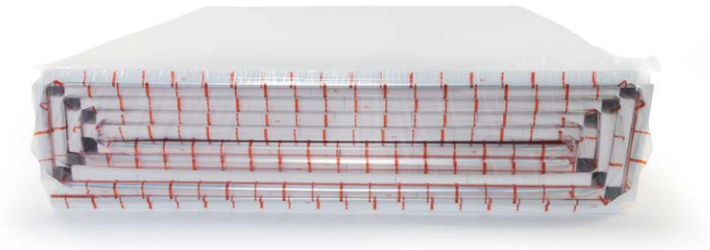
Insulation boards

IZOROL-L PACK

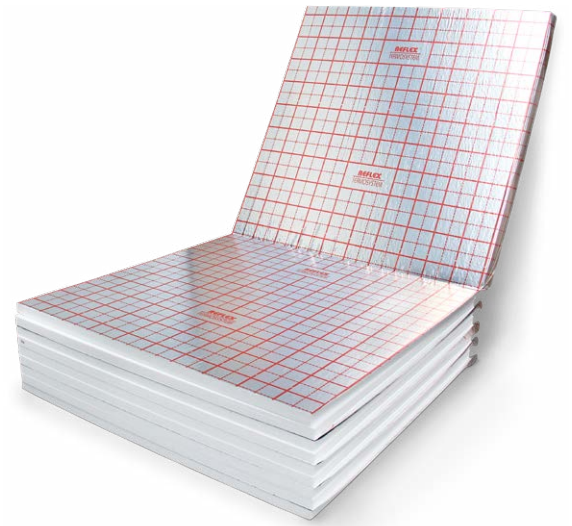
Izorol-L pack insulation boards were developed with view to facilitate transport and storage of the boards, as well as to improve their visual properties.

They are made of stripes of EPS of various thickness thanks to which after assembly the board takes the shape of a cuboid.

Length:	Width:	Thickness:
10m	**1m**	**20 - 35mm**



This package procedure is available for all types of expanded polystyrene (EPS 100, EPS 200, EPS T 040, EPS T 045), with thickness ranging 20 - 35mm.



Insulation boards

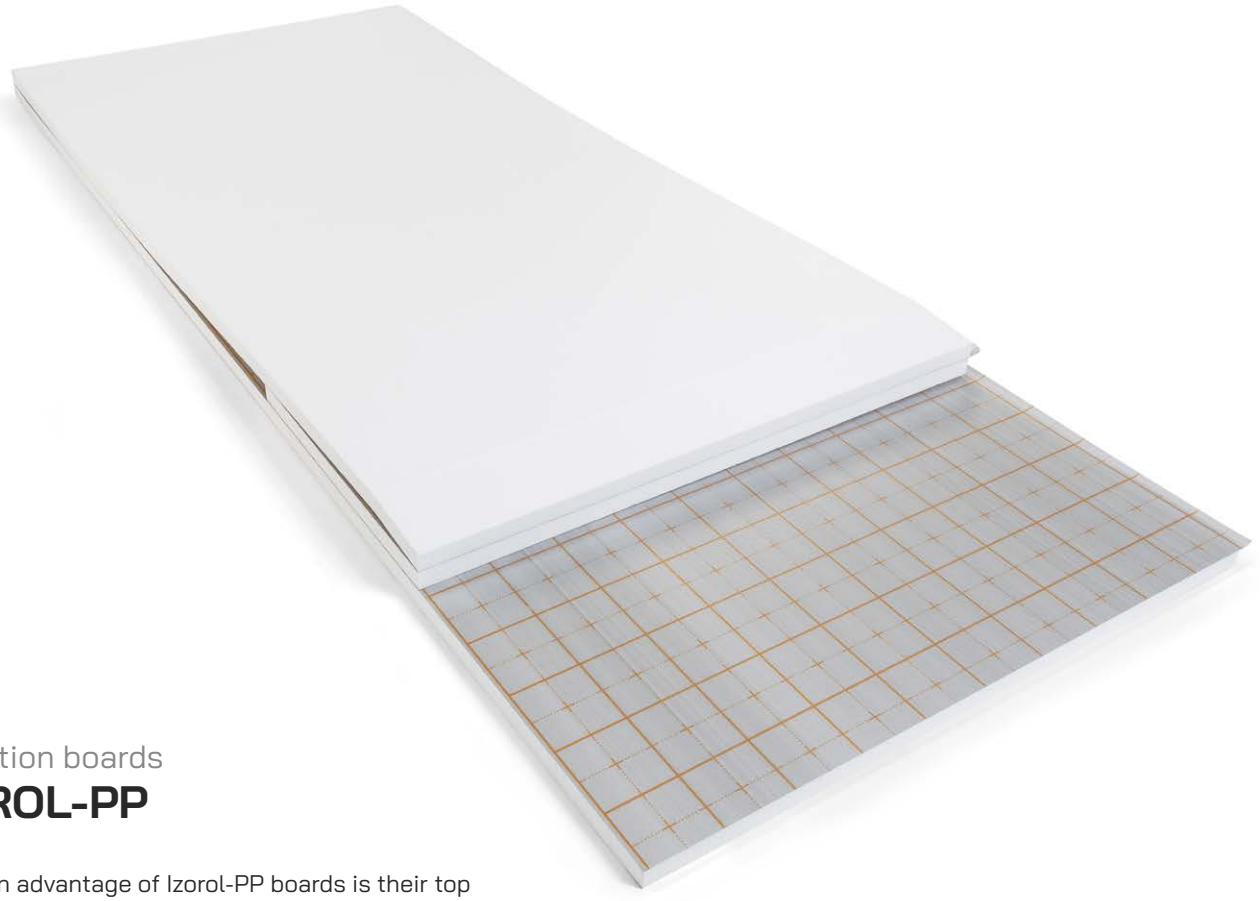
IZOROL-L DUO

IZOROL-L duo insulation boards are made of two uncut expanded polystyrene boards size 1m x 1m.

Length:	Width:	Thickness:
2m	**1m**	**15 - 50mm**

This package procedure is available for all types of expanded polystyrene (EPS 100, EPS 200, EPS T 040, EPS T 045) for each available thickness of boards.

The multipack contains 5 pieces, each 2m².



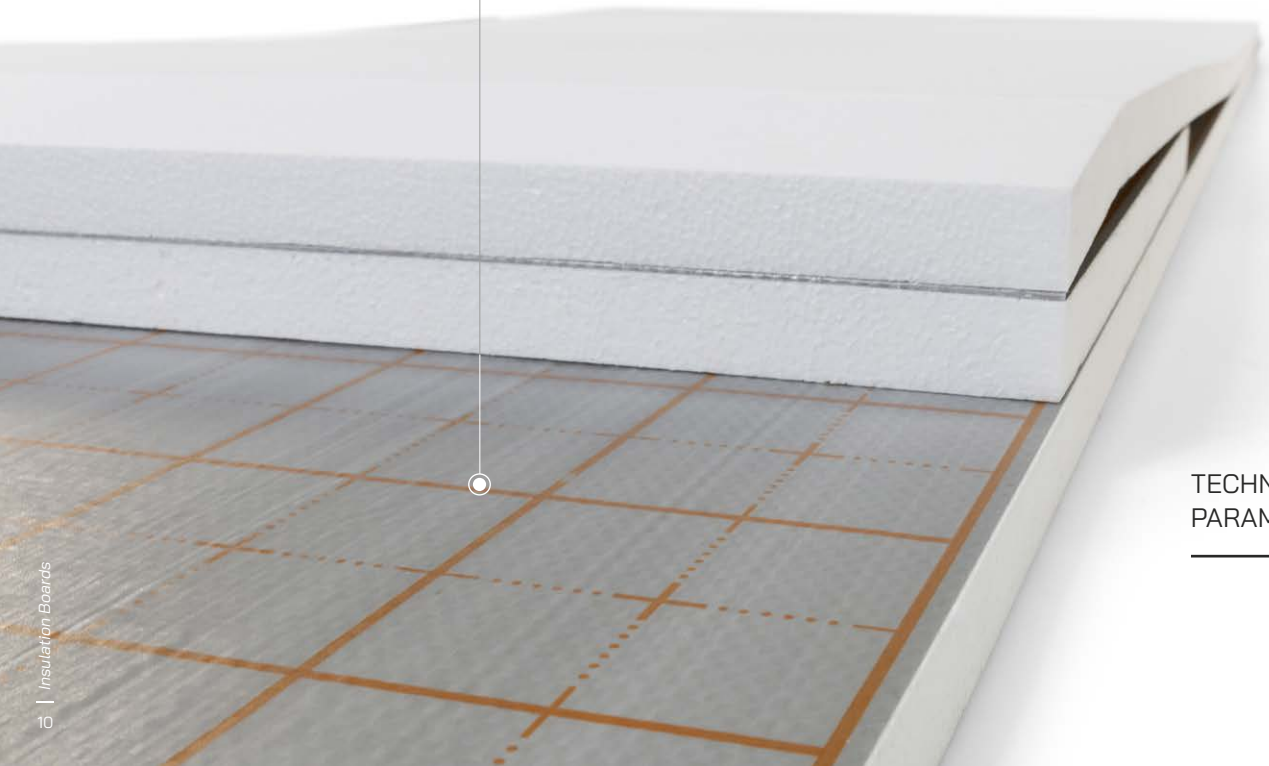
Insulation boards

IZOROL-PP

The main advantage of Izorol-PP boards is their top endurance of the surface (fabric) to tearing. It is of great importance in case of single-layer pipes requiring harder anchoring in insulation.

The boards are made of bands of expanded polystyrene covered on one side with polypropylene fabric coated with polypropylene.

Length:	Width:	Thickness:
5m	**1m**	**25mm, 30mm or 50mm**



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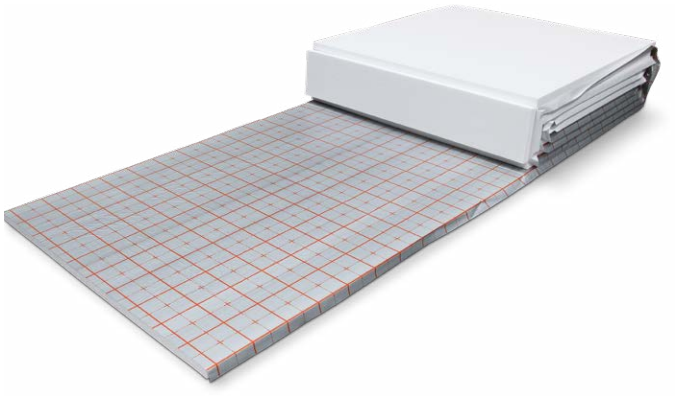


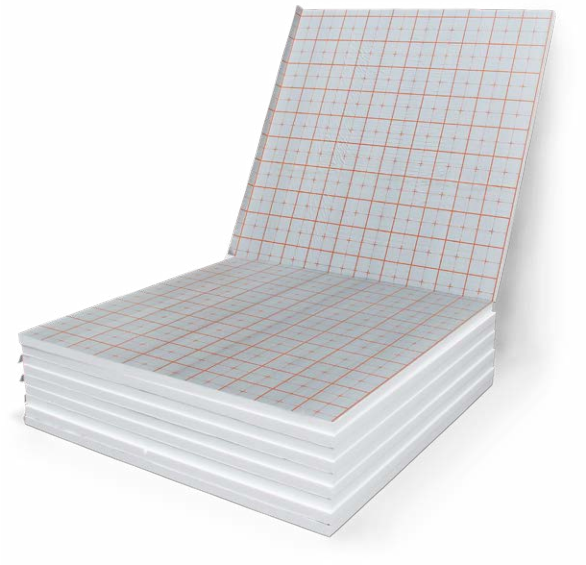
Insulation boards

IZOROL-PP PACK

Izorol-PP pack insulation boards were developed with view to facilitate transport and storage of the boards, as well as to improve their visual properties.

Length:	Width:	Thickness:
10m	**1m**	**20 - 35mm**

This package procedure is available for all types of expanded polystyrene (EPS 100, EPS 200, EPS T 040, EPS T 045), with thickness ranging 20 - 35mm.



Insulation boards

IZOROL-PP DUO

IZOROL-L duo insulation boards are made of two uncut expanded polystyrene boards size 1m x 1m.

Length:	Width:	Thickness:
2m	**1m**	**15 - 50mm**

This package procedure is available for all types of expanded polystyrene (EPS 100, EPS 200, EPS T 040, EPS T 045) for each available thickness of boards.

The multipack contains 5 pieces, each 2m².

NEW PRODUCTS

SR SYSTEM

To extend its floor heating offer, KOTAR introduced a country-wide innovation: the SR insulation and renovation system.

The system consists of the Izorol-SR or Izorol-SR/KL insulation boards and innovative SR clamps developed by our own technical department.

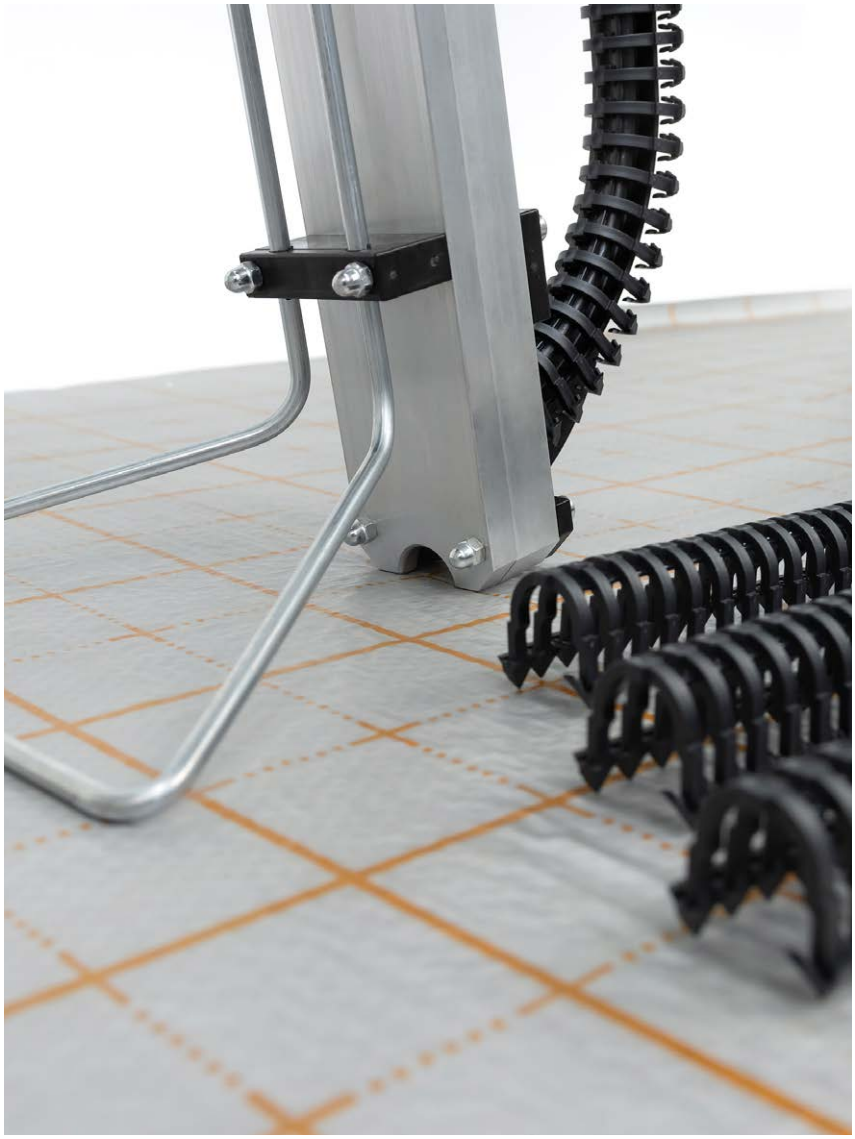
Overprint for easy assembly

Pipe fixing using clamps

10-15mm
Low-profile board

Heavy-duty fabrics

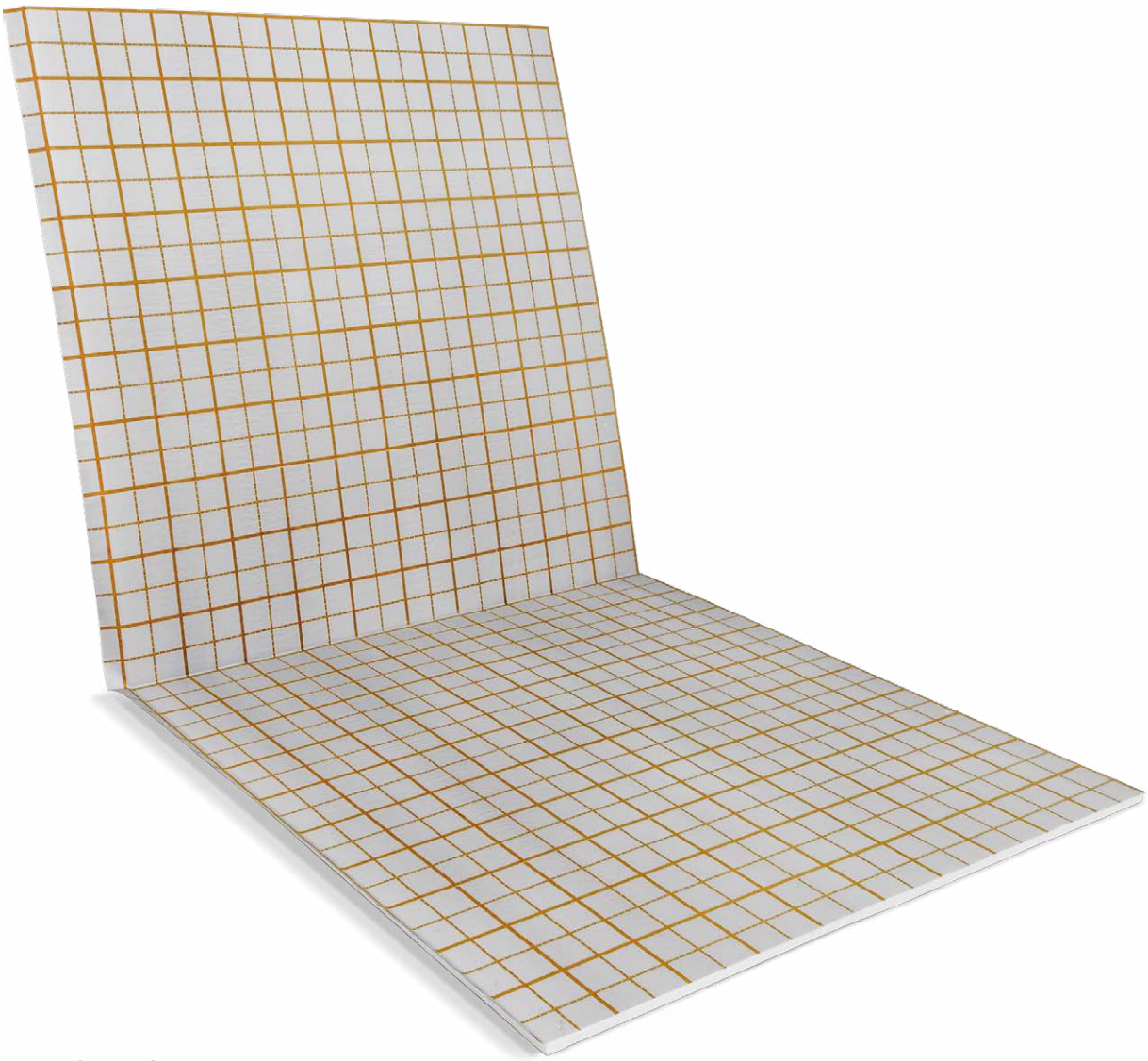
Quick assembly



The SR products are mainly intended

for use in renovation systems and in rooms lacking space for a high insulation layer.

The main advantage of Izorol-SR and Izorol-SR/KL boards is their top endurance of the surface (fabric) to tearing. It is of great importance in case of single-layer pipes requiring stronger anchoring in insulation.



Insulation boards

IZOROL-SR

EPS 200 and EPS-T

Insulation boards IZOROL-SR are made of expanded polysterene EPS 200 and EPS T covered on one side with polypropylene fabric coated with polypropylene.

The boards are delivered in packages of 20m^2 each.

Quantity:	Length:	Width:	Thickness:
10 boards	**2m**	**1m**	**10, 12, 15 mm**

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Insulation boards

IZOROL-SR/KL

EPS 200 and EPS-T

Insulation boards Izorol-SR/KL are made of EPS 200 and EPS-T covered on one sided with polypropylene fabric coated with polypropylene and an additional bottom layer of glue with a transparent siliconized foil.

The transparent siliconized foil protects the bottom layer of the product during transport. The glue used in the bottom layer is used to fix the board to the surface.

The boards are delivered in packages of 20m^2 each.

Quantity:	Length:	Width:	Thickness:
20 boards	**1m**	**1m**	**10, 12, 15 mm**

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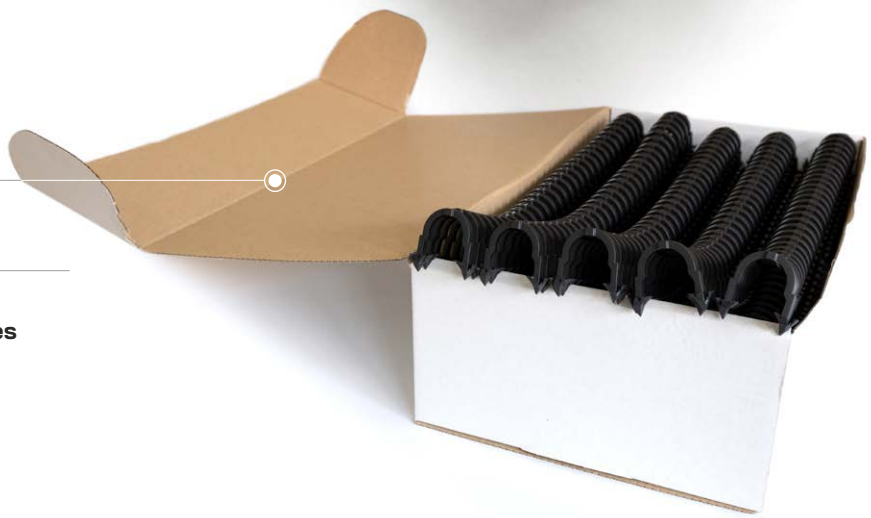
WELDED CLAMPS SR

with innovative **TRIPLE 3D HOOKS** that fix the clip in the insulation board, guaranteeing even stronger connection with the insulation board.

- Welded clamps are used to fasten underfloor heating pipes with maximum diameter 17 mm to insulation boards with a minimum thickness of 10mm,
- An overprint consisting of **100mm x 100mm** checks is provided to facilitate even fixing of clamps to the foil covering the IZOROL insulation boards.

TUBE CLAMPS WELDED IN STAPLER LOADS FOR FLOOR HEATING PIPES ARE MADE OF BLACK POLYPROPYLENE.

Clamps come in stapler loads:
of 30 pieces (load)



Packaging:	Collective packaging:
20 loads	**12000 pieces** **20 boxes x 600 pieces**

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TACKER

for Welded Clamps SR

The tacker is an ergonomic device intended for quick assembly of floor heating pipe fixing clamps.

- Thanks to its simple design and operation, it will surely facilitate the work of many floor heating assemblers.
- The SR clamp tacker is perfectly adapted for SR clamps.

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Overprint for easy assembly

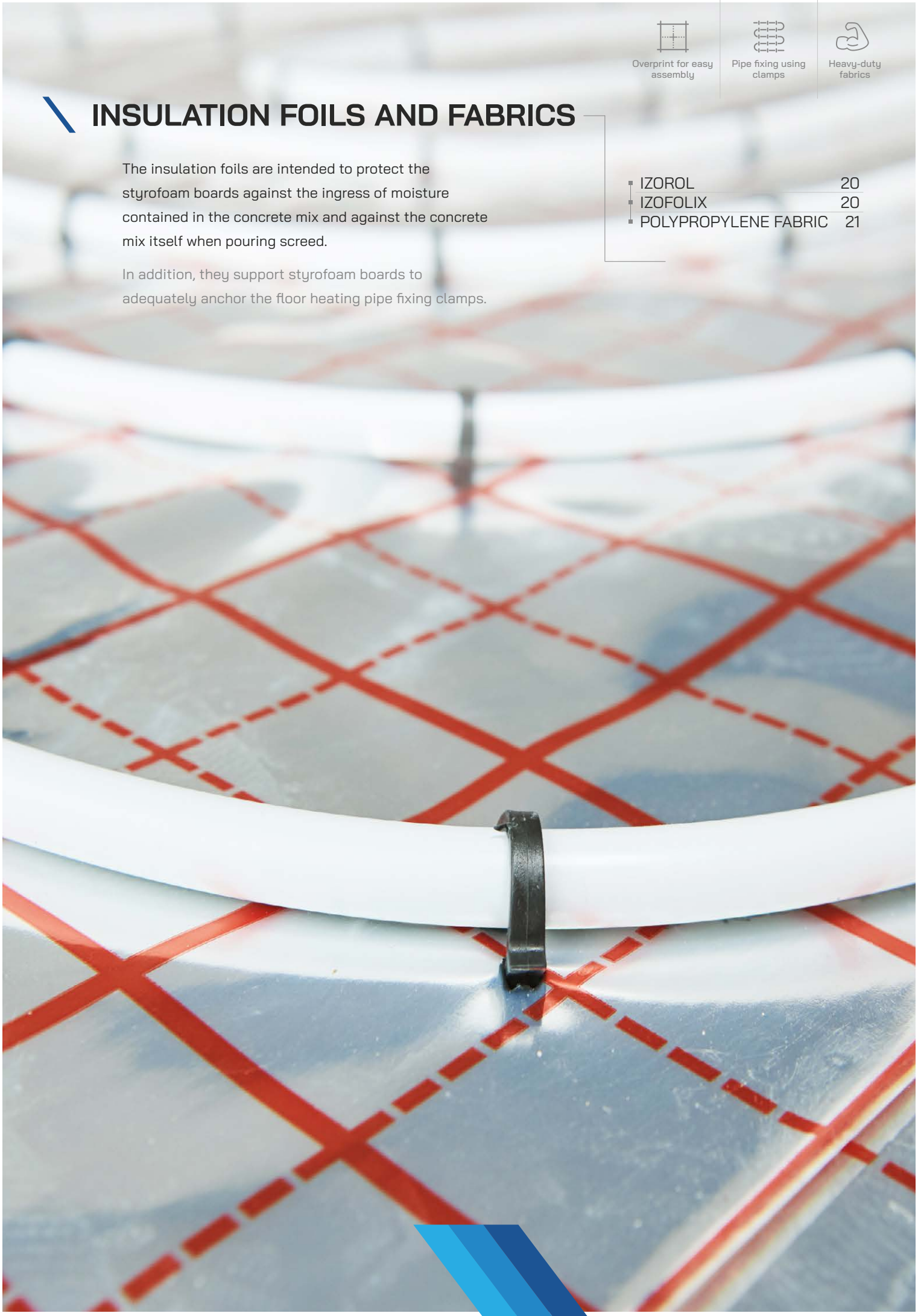
Pipe fixing using clamps

Heavy-duty fabrics

INSULATION FOILS AND FABRICS

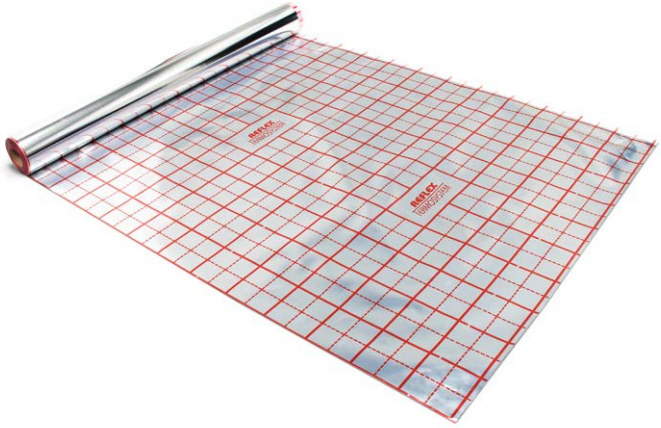
The insulation foils are intended to protect the styrofoam boards against the ingress of moisture contained in the concrete mix and against the concrete mix itself when pouring screed.

In addition, they support styrofoam boards to adequately anchor the floor heating pipe fixing clamps.



- The foil has to be placed with printed side upwards,
- Avoid wrinkling while unfolding the roll of foil,
- The edges between foil layers must be connected with adhesive tape of 50 mm width.

On the top side there is an imprint of straight continuous lines forming squares of 10 cm width and dashed lines forming squares of 5 cm width facilitating appropriate distribution of heating pipes.

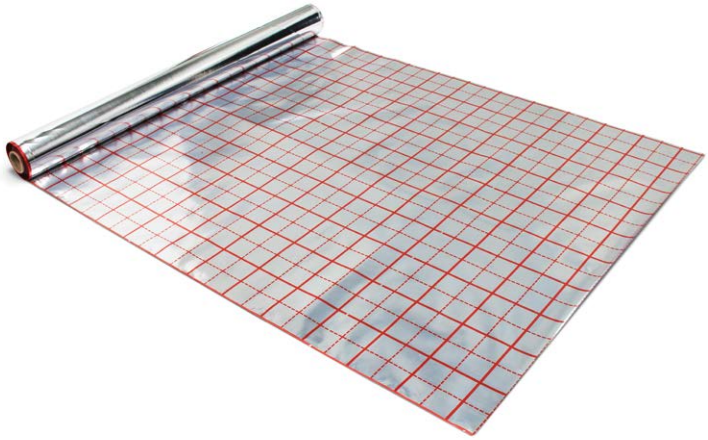


Insulation foil

IZOROL

Floor heating Izorol foil is a laminate of polyethylene foil and metalized polypropylene foil of total thickness of 0.13mm.

Foil width:	Thickness:
105 cm ± 2%	**0.13mm ± 10%**



Insulation foil

IZOFOLIX

Floor heating Izofolix foil is a laminate of polyethylene foil and metalized polypropylene foil of total thickness of 0.105mm.

Foil width:	Thickness:
102 cm ± 2%	**0.105mm ± 10%**

THE FOIL IS SUPPLIED IN 50-METER-LONG BANDS.

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NEW PRODUCTS

POLYPROPYLENE FABRIC

Kotar's polypropylene fabric protects styrofoam boards against moisture and provides them with support in proper anchoring of the floor heating pipe fixing clamps.

OUR PRODUCT IS COATED, WHICH MAKES THE FABRIC THE PERFECT INSULATION AGAINST MOISTURE.

Fabric width:	Thickness:
103cm ± 1%	**0.12mm ± 10%**

The best effects can be achieved by using the fabric with Kotar's EPS boards and pipe fixing clamps.

TO HAVE THE FABRIC'S PROPERTIES CUSTOMIZED, PLEASE CONTACTING US VIA E-MAIL OR TELEPHONE.

THE FABRIC IS DELIVERED IN THE FORM OF A RIBBON WITH 50 RUNNING METRES IN LENGTH.

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Studs for easy assembly

Assembly without the use of clamps

Quick assembly

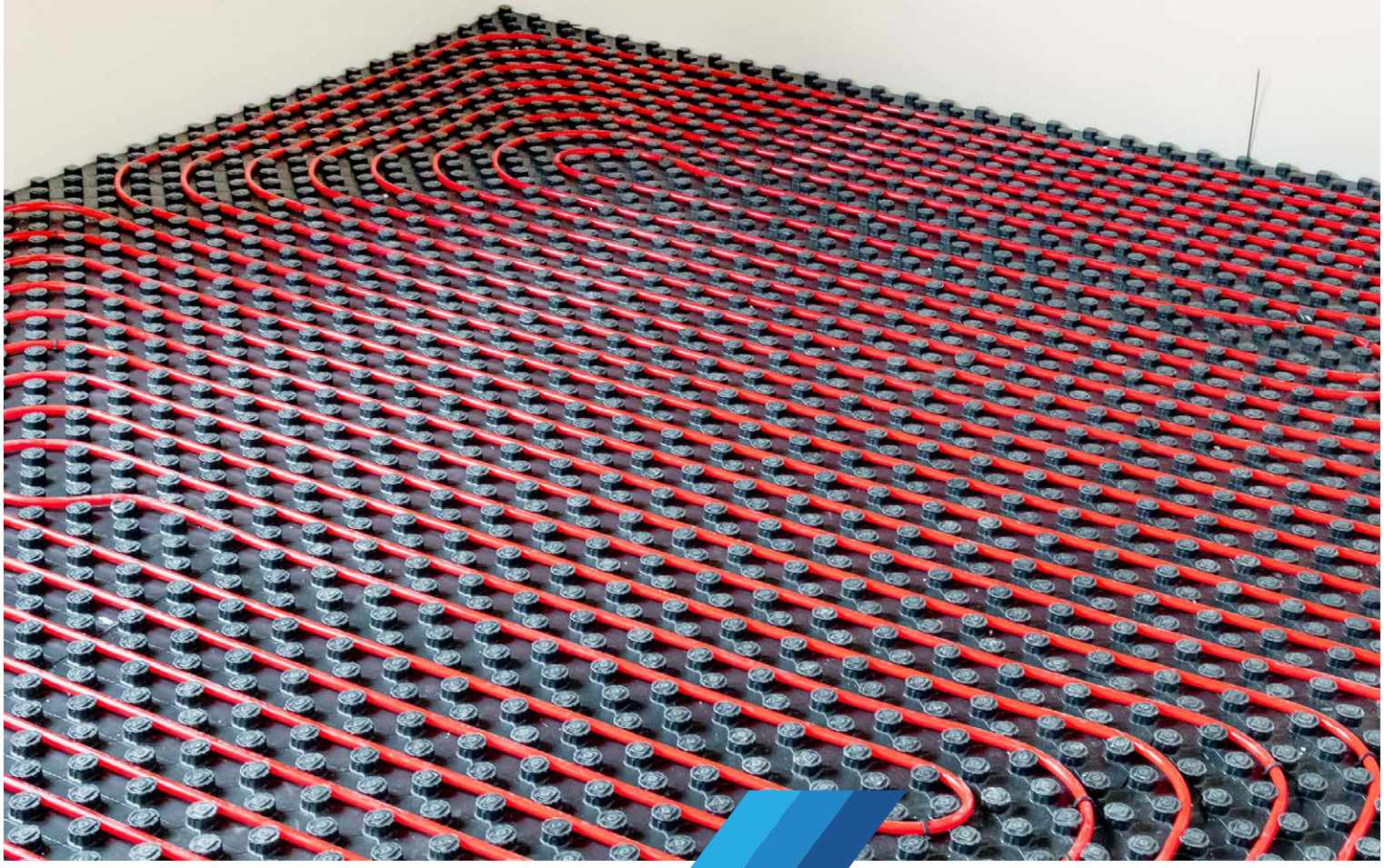
Very high durability

SYSTEM BOARDS

KR system boards are made of EPS and have outlets which closely bed heating pipes so that no extra fitting systems are necessary.

The boards are used as a thermal insulation for floor heating systems in residential buildings and public utilities.

The system boards are intended for quick assembly without fixing clips and tight connection of the boards by overlapping.



The system boards are delivered in a carton box with 10-14 pieces each, depending on the styrofoam's thickness.

System boards

KR50 1G

The boards are made of EPS styrofoam in compliance with EN 13163.

Length:	Width:	Thickness:	Height of the outlets:
1.2m	**0.6m**	**22, 30mm**	**20.50mm**

System boards

KR75 1G

The boards are made of EPS styrofoam in compliance with EN 13163.

Length:	Width:	Thickness:	Height of the outlets:
1.2m	**0.6m**	**22, 30mm**	**20.50mm**

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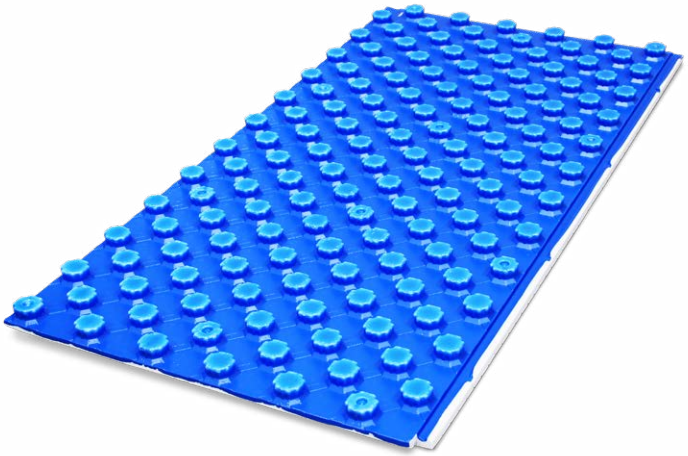


System boards

KR50/L 1G

The boards are made of EPS styrofoam in compliance with EN 13163, covered on one side with thermally formed PS polystyrene foil.

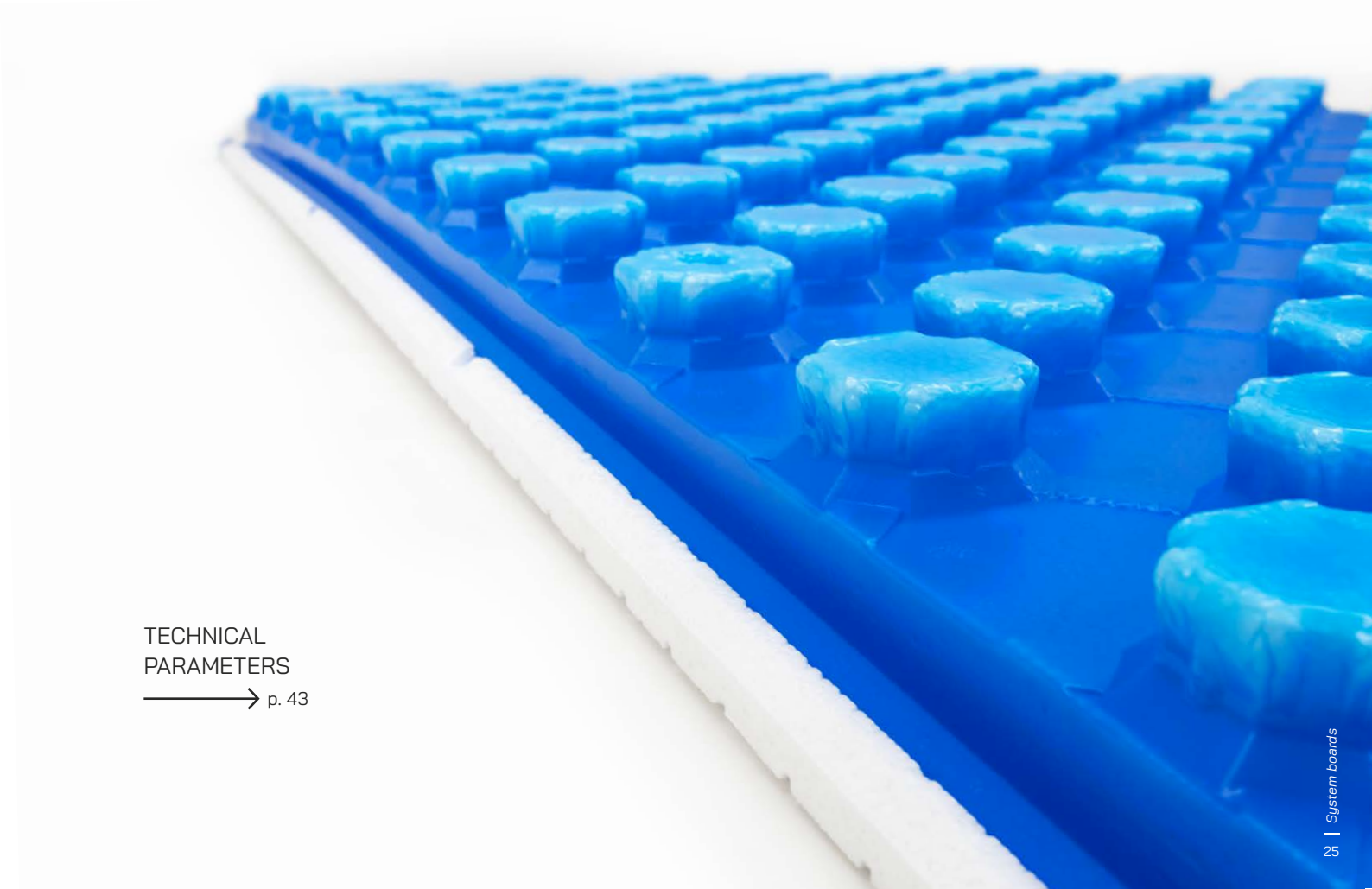
Length:	Width:	Thickness:	Height of the outlets:
1.2m	**0.6m**	**22, 30mm**	**20.50mm**

System boards

KR75/L 1G

The boards are made of EPS styrofoam in compliance with EN 13163, covered on one side with thermally formed PS polystyrene foil.

Length:	Width::	Thickness:	Height of the outlets:
1.2m	**0.6m**	**22, 30mm**	**20.50mm**



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System boards
KR/N 1G

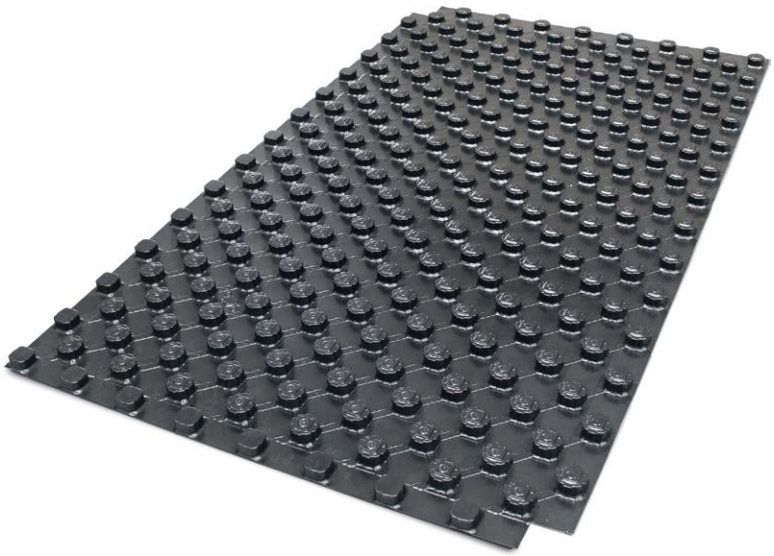
The boards are made of EPS styrofoam in compliance with EN 13163, covered on one side with thermally formed PS polystyrene foil.

Length:	Width:	Thickness:	Height of the outlets:
1.4m	**0.8m**	**11, 20, 30mm**	**22mm**

System boards
KR/N 2G EPS T-040

The boards are made of EPS styrofoam in compliance with EN 13163, covered on one side with thermally formed PS polystyrene foil.

Length:	Width:	Thickness:	Height of the outlets:
1.4m	**0.8m**	**30mm**	**22mm**



Boards
NPS

The boards are made of polystyrene foil without EPS insulation.

Length:	Width:	Thickness:	Height of the outlets:
1.4m	**0.8m**	**1mm**	**22mm**

Multiple unit package: 14 pieces

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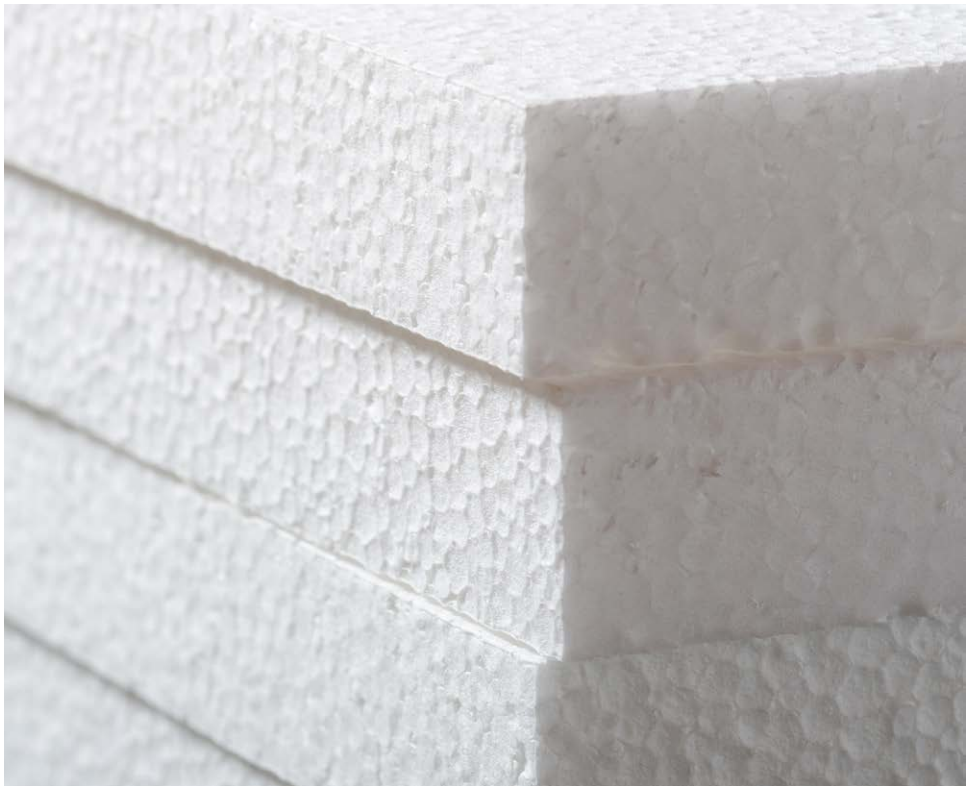
Air is the best
insulator

and styrofoam consists of approx. 98% air, thereby providing it with very good insulating properties.

Styrofoam's main component is polystyrene (EPS), a synthetic material that does not age. Insulation made of styrofoam is extremely durable.

Styrofoam does not absorb water as it is a plastic material.

For this reason, its absorptivity is close to zero. Thanks to this, it remains a great thermal insulator.



ACCESSORIES FOR KR BOARDS

The offer includes products that facilitate and speed up system boards installation.

EXPANSION STRIP
N-PS

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EXPANSION STRIP
1G EPS 200

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CONNECTING STRIP
N-PS

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DIAGONAL
45° N-PS

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CLIP TYPE MT
floor clip

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"KOTAR" EDGE STRIPS

Edge tape is made from foamed polyethylene (LDPE). It is intended for use during the construction of floating floors as separation of the floor and walls, acting as an expansion joint.

The width of applied tape depends on the thickness of the floor layers and should be selected in such a way that its top edge would protrude after laying the backing of the floor.

Once the backing grows solid, the excess of the tape must be cut off with a knife.

Edge tape is made of foamed polyethylene of the following dimensions:

Density:	Thickness:	Width:	Length:
approx. 20 kg/m³	**8mm ± 10%**	**150mm ± 2%**	**25m ± 2%** **50m ± 2%**

Edge strips

NOTCHED

The edge strips is made of foamed polyethylene LDPE.

There are 5 notches every centimetre on the top edge which helps tear the excess of the tape off the floor.

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Edge strips

WITH OVERLAPS AND NOTCHES

In addition to the parameters of the notched version, it comes along with a PE foil overlap of 20 cm width used for covering joints of vertical insulation (edge tape) and horizontal insulation (eg. IZOROL boards).

There are 5 notches every centimetre on the top edge which helps tear the excess of the tape off the floor.

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TECHNICAL PARAMETERS
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Edge strips

SELF-ADHESIVE

The edge strips are available both with overlap and notches and only with notches.

- On the inside a strip of adhesive of 3 cm width has been applied, covered with silicon-coated paper layer,
- The adhesive is to facilitate application of the edge tape in floating floors construction.

Depending on the type, the tape features five incisions at intervals of 1 cm from the top edge, enabling the removal of excess tape protruding above the flooring.

Edge strips

ON BUTYL

A butyl strap with approx. 3 cm in width is placed on the outer side of the tape. The overlap features the same strap.

The butyl layer used on the tape and overlap is intended to facilitate the tape's assembly during floating floor construction.

Depending on the type, the tape features five incisions at intervals of 1 cm from the top edge, enabling the removal of excess tape protruding from the flooring.

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The multipack contains:

150m	250m
6 rolls of 25m	**5 rolls of 50m**

TUBE CLAMPS

Clamps ensure correct fixing of floor heating pipes to the insulation board.

The clamps are made from polypropylene.

They are intended for fixing floor heating pipes. The size of the clamps should match the thickness.

Clamps
ON TAPE

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Clamps
ON WIRE

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Welded
CLAMPS

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CLAMPS
packed in bulk

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UNDERFLOOR HEATING ACCESSORIES

The catalogue includes products facilitating the installation as well as increasing safety of operation.

SINGLE PLUG CLAMP

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DOUBLE PLUG CLAMP

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PIPE CLAMP FOR CU PIPE

with a wall anchor and a screw

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DUOBLE PIPE CLAMP FOR CU PIPE

with a wall anchor and a screw

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FAST INSTALLATION CLIPS

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UFH RAIL

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CLIP

to rail

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GUIDING ARCH

TECHNICAL PARAMETERS
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SELF-ADHESIVE TAPE

for underfloor heating boards

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TACKER

TECHNICAL PARAMETERS
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T-80 EXPANSION BEAD MOVEMENT JOINT PROFILE

Profile t-80 is meant to fill movement joint slots in vast concrete floors.

- Profile of foamed polyethylene of thickness of 30 kg/1m³ applied in the shape of reversed letter T.

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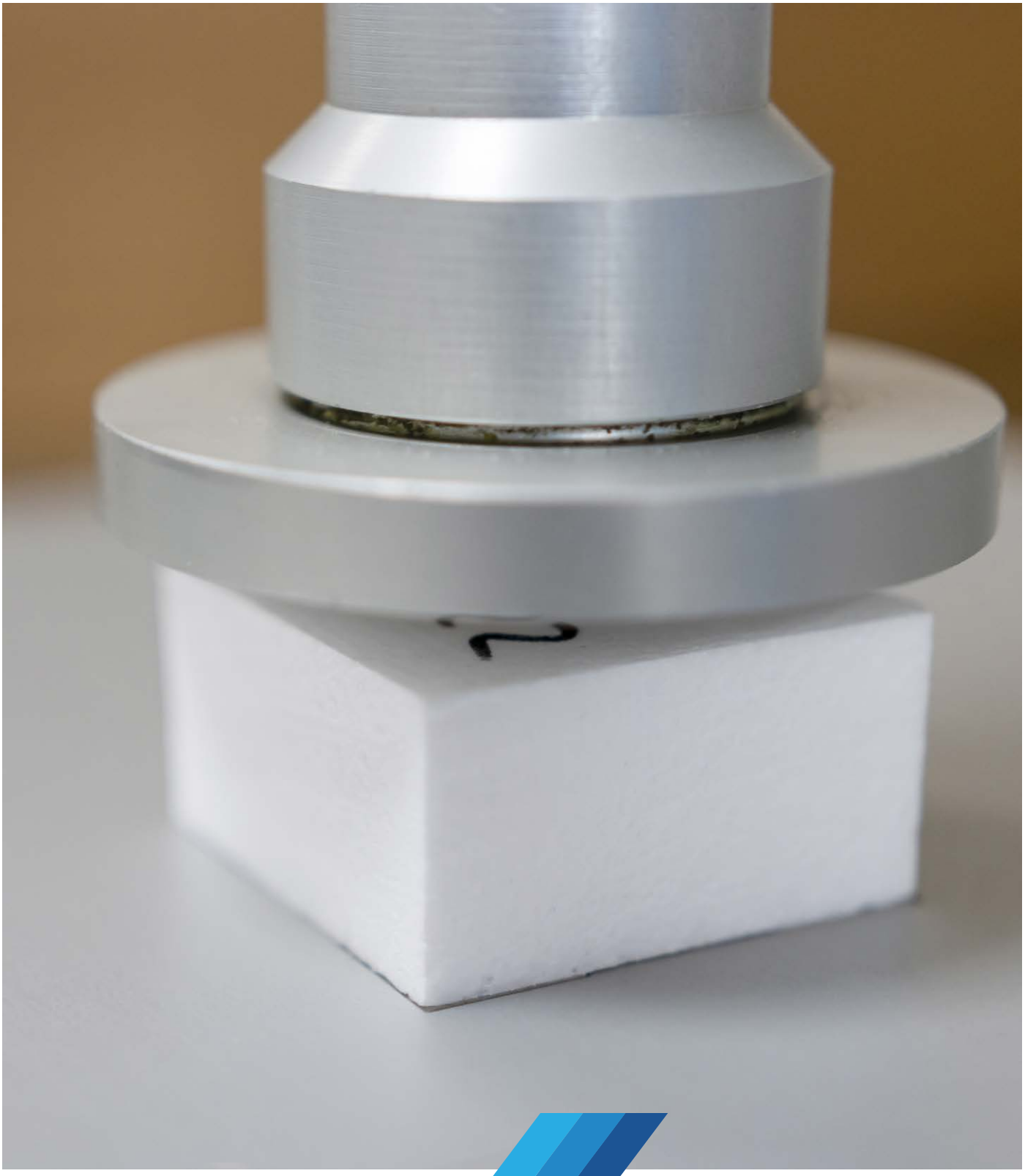


Quality control

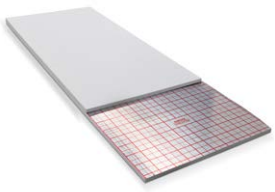
is an INTEGRAL element of our manufacturing process.

The quality of our products is verified during each phase of manufacturing as part of internal inspections conducted by our production personnel as well as quality control experts.

We conduct many inspection and measurement tests at our laboratory to monitor the quality of the products on an on-going basis.

PRODUCTS INDEX

INSULATION BOARDS



Insulation boards
IZOROL-L

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3) L(2)	- 1% ; + is not limited ± 2mm
Width	mm	W(2) W(3)	± 2mm ± 0,6% or ± 3 mm
Thickness	mm	T(2) T(1) T(0)	± 2 mm ± 1 mm -0; +10% or 2mm for dL< 35mm -0; +15% or 3mm for dL⩾ 35mm
Squareness	mm/m	S(5) S(2)	± 5 mm/1000 mm ± 2 mm/1000 mm
Flatness	mm	P(10) P(5)	± 10 mm ± 5 mm
Bending strength	kPa	BS50 BS150 BS250	⩾ 50 ⩾ 150 ⩾ 250
Compression stress levels at 10% relative deformation	kPa	CS(10)100 CS(10)200	⩾ 100 ⩾ 200
Dimensional stability in normal constant laboratory conditions	%	DS(N)5	± 0,5
Dimensional stability in set temperature conditions (70° C, 48h)	%	DS(70,-)2	max 2
Deformation in set compression load and temperature: Load: 20 kPa, temperature: 80 ± 1°, time: 48 ± 1h Load: 40 kPa, temperature: 70 ± 1°, time: 168 ± 1h	%	DLT(1)5 DLT(2)5	⩽ 5 ⩽ 5
Compressibility	mm	CP2 CP3	⩽2 ⩽3
Dynamic stiffness	mMN/m³m	SD 15,20,25,30	⩽15 ⩽20 ⩽25 ⩽30
Declared thermal conductivity EPS 100, EPS 200, EPS T 040, EPS T 045	W/mK		0,038, 0,034, 0,040, 0,045
Fire reaction		E	

IZOROL-L BOARDS ARE MADE THE FOLLOWING BOARDS IN ACCORDANCE WITH EN 13163:

IZOROL-L EPS 100 insulation boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-BS150-CS(10)100-DS(N)5-DS(70,-)2-DLT(1)5
IZOROL-L EPS 200 insulation boards
EPS-EN 13163 T(1)-L(2)-W(2)-S(2)-P(5)-BS250-CS(10)200-DS(N)5-DS(70,-)2-DLT(2)5
IZOROL-L EPS T 040 insulation boards
EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-BS50-DS(N)5-SD(25-30)-CP2
IZOROL-L EPS T 045 insulation boards
EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-BS50-DS(N)5-SD(15-20)-CP3

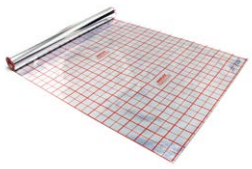
Insulation boards
IZOROL-PP

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3) L(2)	- 1% ; + is not limited ± 2mm
Width	mm	W(2) W(3)	± 2mm ± 0,6% or ± 3 mm
Thickness	mm	T(2) T(1) T(0)	± 2 mm ± 1 mm -0; +10% or 2mm for dL< 35mm -0; +15% or 3mm for dL⩾ 35mm
Squareness	mm/m	S(5) S(2)	± 5 mm/1000 mm ± 2 mm/1000 mm
Flatness	mm	P(10) P(5)	± 10 mm ± 5 mm
Bending strength	kPa	BS50 BS150 BS250	⩾ 50 ⩾ 150 ⩾ 250
Compression stress levels at 10% relative deformation	kPa	CS(10)100 CS(10)200	⩾ 100 ⩾ 200
Dimensional stability in normal constant laboratory conditions	%	DS(N)5	± 0,5
Dimensional stability in set temperature conditions (70° C, 48h)	%	DS(70,-)2	max 2
Deformation in set compression load and temperature: Load: 20 kPa, temperature: 80 ± 1°, time: 48 ± 1h Load: 40 kPa, temperature: 70 ± 1°, time: 168 ± 1h	%	DLT(1)5 DLT(2)5	⩽ 5 ⩽ 5
Compressibility	mm	CP2 CP3	⩽2 ⩽3
Dynamic stiffness	mMN/m³m	SD 15,20,25,30	⩽15 ⩽20 ⩽25 ⩽30
Declared thermal conductivity EPS 100, EPS 200, EPS T 040, EPS T 045	W/mK		0,038, 0,034, 0,040, 0,045
Fire reaction		E	

IZOROL-PP BOARDS ARE MADE THE FOLLOWING BOARDS IN ACCORDANCE WITH EN 13163:

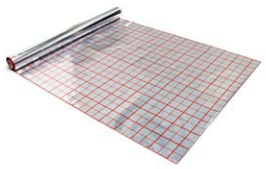
IZOROL-PP EPS 100 insulation boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-BS150-CS(10)100-DS(N)5-DS(70,-)2-DLT(1)5
IZOROL-PP EPS 200 insulation boards
EPS-EN 13163 T(1)-L(2)-W(2)-S(2)-P(5)-BS250-CS(10)200-DS(N)5-DS(70,-)2-DLT(2)5
IZOROL-PP EPS T 040 insulation boards
EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-BS50-DS(N)5-SD(25-30)-CP2
IZOROL-PP EPS T 045 insulation boards
EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-BS50-DS(N)5-SD(15-20)-CP3

INSULATION FOILS AND FABRICS



Insulation folis
IZOROL

TECHNICAL SPECIFICATION	
Surface mass	128 g/m² ± 5%
TENSILE STRENGTH:	
Maximum tensile strength: along across	 ⩾ 20 MPA ⩾ 30 MPA
Extension at maximum tension: along across	 ⩾ 65% ⩾ 15%



Insulation folis
IZOFOLIX

TECHNICAL SPECIFICATION	
Surface mass	100 g/m² ± 5%
TENSILE STRENGTH:	
Maximum tensile strength: along across	 ⩾ 25 MPA ⩾ 35 MPA
Extension at maximum tension: along across	 ⩾ 70% ⩾ 15%

POLYPROPYLENE
Fabric

TECHNICAL SPECIFICATION	STANDARD	UNIT	RESULT	TOLERANCE
Coated fabric surface density	EN ISO 2286-2	g/m²	72	(+/-)5 %
Coating surface density	EN ISO 2286-2	g/m²	20	(+/-)5 %
Non-coated fabric surface density	EN ISO 2286-2	g/m²	52	(+/-)5 %
Tensile strength (warp)	EN ISO 13934-1	N/5cm	668	(+/-)10 %
Tensile strength (weft)	EN ISO 13934-1	N/5cm	590	(+/-)10 %
Elongation (warp)	EN ISO 13934-1	%	20	(+/-)10 %
Elongation (weft)	EN ISO 13934-1	%	20	(+/-)10 %
Shrinkage 2h - 50°C	EN ISO 13844	%	1	1%>
Shrinkage 2h - 60°C	EN ISO 13844	%	1	1%>
Shrinkage 2h - 70°C	EN ISO 13844	%	1	1%>
Crest		mN/m	40	-2/2
Warp tape width		mm	3	(+/-)0,15 mm
Weft tape width		mm	4	(+/-)0,15 mm
REEL DATA				
Core	76 mm			
Standard width	1030 mm			
Packaging	pallet			

SYSTEM BOARDS

System boards
KR50 1G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(2)	± 2 mm
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength: EPS 150 EPS 200	kPa	 BS200 BS250	 ⩾ 200 ⩾ 250
Compression stress levels at 10% relative deformation: EPS 150 EPS 200	kPa	 CS(10)150 CS(10)200	 ⩾ 150 ⩾ 200
Dimensional stability at specified temperature (70° C, 48h)	%	DS(70,-)1	max 1%
Deformation at specified compression stress and temperature (stress: 40kPa, temperature 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5
Declared thermal conductivity: EPS 150 EPS 200	W/mK	 	 0,035 0,033
Fire reaction		E	
Board dimensions	mm		1200 x 600
Board dimensions incl. overlaps	mm		1220 x 620
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		50
Multiple unit package: 22mm 30mm	pcs	 	 12 10

[1] The value of highest numerical tolerance

KR50 SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR50 1G EPS 150 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS200-CS(10)150-DS(70,-)1-DLT(2)5
KR50 1G EPS 200 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS250-CS(10)200-DS(70,-)1-DLT(2)5

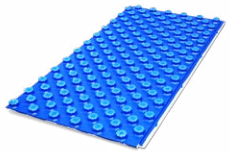
System boards
KR75 1G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(2)	± 2 mm
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength: EPS 150 EPS 200	kPa	 BS200 BS250	 ⩾ 200 ⩾ 250
Compression stress levels at 10% relative deformation: EPS 150 EPS 200	kPa	 CS(10)150 CS(10)200	 ⩾ 150 ⩾ 200
Dimensional stability at specified temperature (70° C, 48h)	%	DS(70,-)1	max 1%
Deformation at specified compression stress and temperature (stress: 40kPa, temperature 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5
Declared thermal conductivity: EPS 150 EPS 200	W/mK	 	 0,035 0,033
Fire reaction		E	
Board dimensions	mm		1200 x 600
Board dimensions incl. overlaps	mm		1220 x 620
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		75
Multiple unit package: 22mm 30mm	pcs	 	 12 10

[1] The value of highest numerical tolerance

KR75 SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR75 1G EPS 150 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS200-CS(10)150-DS(70,-)1-DLT(2)5
KR75 1G EPS 200 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS250-CS(10)200-DS(70,-)1-DLT(2)5



System boards
KR50/L 1G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(2)	± 2 mm
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength: EPS 150 EPS 200	kPa	 BS200 BS250	 ⩾ 200 ⩾ 250
Compression stress levels at 10% relative deformation: EPS 150 EPS 200	kPa	 CS(10)150 CS(10)200	 ⩾ 150 ⩾ 200
Dimensional stability at specified temperature (70° C, 48h)	%	DS(70,-)1	max 1%
Deformation at specified compression stress and temperature (stress: 40kPa, temperature 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5
Declared thermal conductivity: EPS 150 EPS 200	W/mK	 	 0,035 0,033
Fire reaction		F	
Board dimensions	mm		1200 x 600
Board dimensions incl. overlaps	mm		1220 x 620
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		50
Foil thickness	mm		0,20
Multiple unit package: 22mm 30mm	pcs	 	 12 10

[1] The value of highest numerical tolerance

KR50/L SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR50/L 1G EPS 150 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS200-CS(10)150-DS(70,-)1-DLT(2)5
KR50/L 1G EPS 200 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS250-CS(10)200-DS(70,-)1-DLT(2)5

System boards
KR75/L 1G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(2)	± 2 mm
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength: EPS 150 EPS 200	kPa	 BS200 BS250	 ⩾ 200 ⩾ 250
Compression stress levels at 10% relative deformation: EPS 150 EPS 200	kPa	 CS(10)150 CS(10)200	 ⩾ 150 ⩾ 200
Dimensional stability at specified temperature (70° C, 48h)	%	DS(70,-)1	max 1%
Deformation at specified compression stress and temperature (stress: 40kPa, temperature 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5
Declared thermal conductivity: EPS 150 EPS 200	W/mK	 	 0,035 0,033
Fire reaction		F	
Board dimensions	mm		1200 x 600
Board dimensions incl. overlaps	mm		1220 x 620
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		75
Foil thickness	mm		0,20
Multiple unit package: 22mm 30mm	pcs	 	 12 10

[1] The value of highest numerical tolerance

KR75/L SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR75/L 1G EPS 150 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS200-CS(10)150-DS(70,-)1-DLT(2)5
KR75/L 1G EPS 200 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS250-CS(10)200-DS(70,-)1-DLT(2)5

System boards
KR/N 1G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(2)	± 2 mm
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength: EPS 150 EPS 200	kPa	 BS200 BS250	 ⩾ 200 ⩾ 250
Compression stress levels at 10% relative deformation: EPS 150 EPS 200	kPa	 CS(10)150 CS(10)200	 ⩾ 150 ⩾ 200
Dimensional stability at specified temperature (70° C, 48h)	%	DS(70,-)1	max 1%
Deformation at specified compression stress and temperature (stress: 40kPa, temperature 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5
Declared thermal conductivity EPS 150 EPS 200	W/mK	 	 0,035 0,033
Fire reaction		F	
Board dimensions	mm		1400 x 800
Board dimensions incl. overlaps	mm		1450 x 850
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		50
Foil thickness	mm		0,60
Multiple unit package: 11mm 20mm 30mm	pcs	 	 14 10 10

[1] The value of highest numerical tolerance

KR/N SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR/N 1G EPS 150 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS200-CS(10)150-DS(70,-)1-DLT(2)5
KR/N 1G EPS 200 system boards
EPS-EN 13163 T(2)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS250-CS(10)200-DS(70,-)1-DLT(2)5

System boards
KR/N 2G

PROPERTY	UNIT	CLASS	REQUIREMENTS
Length	mm	L(3)	± 0,6% or ± 3 mm[1]
Width	mm	W(3)	± 0,6% or ± 3 mm[1]
Thickness	mm	T(0)	(-0mm; +10% lub 2mm)
Squareness	mm/m	S(5)	± 5 mm/1000 mm
Flatness	mm	P(10)	± 10 mm
Dimension stability in normal constant laboratory conditions	%	DS(N)2	± 0,2
Bending strength:	kPa	BS100	⩾ 100
Sztywność Dynamiczna	MN/m³	SD30	⩾ 30
Ściśliwość	mm	CP2	⩽ 2 mm
Declared thermal conductivity	W/mK		0,040
Fire reaction		F	
Board dimensions	mm		1400 x 800
Board dimensions incl. overlaps	mm		1450 x 850
Acceptable dimensions of heating pipes	mm		14 - 18
Pipe's bend	mm		50
Foil thickness	mm		1
Multiple unit package:	pcs		10

[1] The value of highest numerical tolerance

KR/N 2G SYSTEM BOARDS ARE MADE OF EXPANDED POLYSTYRENE IN ACCORDANCE WITH EN 13163:

KR/N 2G EPS T 040 system boards
EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-DS(N)2-BS100-SD30-CP2

Boards
N-PS

PROPERTY	UNIT	REQUIREMENTS
Length	mm	1400
Width	mm	800
Lenght with an overlap	mm	1450
Width with an overlap	mm	850
Thickness	mm	1
Height of the outlet	mm	22
Acceptable dimensions of heating pipes	mm	14 - 18
Pipe's bend	mm	50

ACCESSORIESS FOR KR BOARDS

EXPANSION STRIP
N-PS

DIMENSIONS	MULTIPLE UNIT PACKAGE
1450mm x 200mm x 0,60mm	20 pcs

EXPANSION STRIP
1G EPS 200

DIMENSIONS	MULTIPLE UNIT PACKAGE
1000mm x 200mm x 30mm	30 pcs

CONNECTING STRIP
N-PS

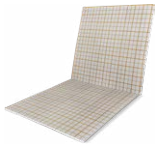
DIMENSIONS	MULTIPLE UNIT PACKAGE
1450mm x 100mm x 0,60mm	24 pcs

DIAGONAL
45° N-PS

DIMENSIONS	MULTIPLE UNIT PACKAGE
140mm x 70mm x 0,60mm	40 pcs

CLIP TYPE MT
FLOOR CLIP

DIMENSIONS	MULTIPLE UNIT PACKAGE
28mm x 90mm x 14mm	100 pcs



Insulation boards
IZOROL-SR
EPS 200

Insulation boards
IZOROL-SR/KL
EPS 200

For the production of insulation boards IZOROL- SR EPS 2002 and IZOROL- SR/KL EPS 2003 styrofoam boards are used according to EN 13163:

EPS-EN 13163 T(1)-L(2)-W(2)-S(2)-P(5)-BS250-CS(10)200-DS(N)5-DS(70,-)2-DLT(2)5 for thickness: 10-15mm

PROPERTY	UNIT	CLASS	REQUIREMENTS*	MEASURED VALUES
Lenght	mm	L(2)	± 2 mm	--
Width	mm	W(2)	± 2 mm	--
Thickness	mm	T(1)	± 1 mm	--
Squareness	mm/m	S(2)	± 2 mm/1000 mm	--
Flatness	mm	P(5)	5mm	--
Bending strength	kPa	BS250	⩾ 250	--
Levels for compressive stress at 10% deformation	kPa	CS(10)200	⩾ 200	239,3 for 10mm**
Dimensional stability under constant normal laboratory conditions	%	DS(N)5	± 0,5	--
Dimensional stability under specified temperature and humidity conditions (70° C, 48h)	%	DS(70,-)2	max 2%	--
Deformation under specified compressive load and temperature conditions (load: 40kPa, temperature: 70 ± 1°C, time: 168 ± 1h)	%	DLT(2)5	⩽ 5[1]	--
Declared thermal conductivity	W/mK	--	0,034	0,0308 for 10mm**
Maximum permissible load (compressive stress at 20% deformation per 1m2 of the product)	kN	--	--	3,824 for 10mm***
Reaction to fire	--	E	--	--
Dimensions of the board IZOROL-SR EPS 200	mm	--	2000 x 1000	--
Dimensions of the board IZOROL-SR/KL EPS 200	mm	--	1000 x 1000	--

[1] At thicknesses < 20mm the requirement is 1mm instead of 5%

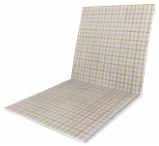
* According to EN 13163:2012 +A1:2015 standard

** Values measured in the Kotar laboratory under the project: „Kotar SR insulation and renovation system"

*** Values measured in the Wrocław University of Technology under the project: „Kotar SR insulation and renovation system"

[2] IZOROL- SR EPS 200 - EPS 200 boards to which the polypropylene fabric is glued

[3] IZOROL- SR/KL EPS 200 – boards with an additional layer of glue on the bottom layer, covered with siliconized foil. KL- stands for an additional adhesive layer



Insulation boards
IZOROL-SR
EPS T

Insulation boards
IZOROL-SR/KL
EPS T

For the production of insulation boards IZOROL- SR EPS T2 and IZOROL- SR/KL EPS T3 styrofoam boards are used according to EN 13163:

EPS-EN 13163 T(1)-L(3)-W(3)-S(5)-P(10)-BS50-DS(70,-)5-SD20-CP2 for thickness: 10-12mm

EPS-EN 13163 T(0)-L(3)-W(3)-S(5)-P(10)-BS50-DS(70,-)5-SD20-CP2 for thickness: 15mm

PROPERTY	UNIT	CLASS	REQUIREMENTS*	MEASURED VALUES
Lenght	mm	L(3)	± 0,6% or ± 3 mm[1]	--
Width	mm	W(3)	± 0,6% or ± 3 mm[1]	--
Thickness	mm	T(1)	-5% or -1mm[1]; +15% or 3mm[1]	--
		T(0)	-0; +10% or 2mm for dL<35mm -0; +15% or 3mm for dL⩾ 35mm	--
Squareness	mm/m	S(5)	± 5 mm/1000 mm	--
Flatness	mm	P(10)	10 mm	--
Bending strength	kPa	BS50	⩾ 50	--
Dimensional stability under specified temperature and humidity conditions (70° C, 48h)	%	DS(70,-)5	max 5%	--
Compressibility	mm	CP2	⩽ 2	--
Dynamic stiffness	MN/1m^3	SD20	⩽ 20	SD17 for 15mm; ⩽ 17
The weighted reduction of impact sound pressure level	dB	SD20	ΔLw= 29	Assuming SD25 ΔLw= 28
Declared thermal conductivity	W/mK	--	0,040	--
Reaction to fire	--	E	--	--
Dimensions of the board IZOROL-SR EPS T	mm	--	2000 x 1000	--
Dimensions of the board IZOROL-SR/KL EPS T	mm	--	1000 x 1000	--

[1] Whichever gives the greatest numerical tolerance

* According to EN 13163:2012 +A1:2015 standard

** Values measured in the Kotar laboratory under the project: „Kotar SR insulation and renovation system"

[2] IZOROL- SR EPS T- EPS T boards to which the polypropylene fabric is glued

[3] IZOROL- SR/KL EPS T– boards with an additional layer of glue on the bottom layer, covered with siliconized foil. KL- stands for an additional adhesive layer

WELDED CLAMPS SR

PROPERTY	UNIT	REQUIREMENTS
Lenght	mm	≈30
Width	mm	≈35
Thickness	mm	max 9,1
Acceptable dimensions of heating pipes	mm	max 17
The value of the force of detaching the clips from the insulation board – lengthwise	N	149,7*
The value of the force of detaching the clips from the insulation board – across	N	142,5*

* Values measured in the Kotar laboratory under the project: „Kotar SR insulation and renovation system"

TACKER

for Welded Clamps SR

COLOUR	PACKAGING
silver	1 pcs

EDGE STRIPS

Edge Strips
SELF-ADHESIVE

TECHNICAL SPECIFICATION	
Thickness	8 mm
Width	13-16cm
Length	25rm ± 2%; 50rm ± 1%
Density	approx. 20 kg/m³
Foil width – overlaps	20 cm
Glue	3 cm wide
Incisions	every 1 cm

Edge Strips
WITH OVERLAPS AND NOTCHES

TECHNICAL SPECIFICATION	
Thickness	8 mm
Width	13-16cm
Length	25rm ± 2%; 50rm ± 1%
Density	approx. 20 kg/m³
Foil width – overlaps	20 cm
Incisions	every 1 cm

Edge Strips
NOTCHED

TECHNICAL SPECIFICATION	
Thickness	8 mm
Width	13-16 cm
Length	25rm ± 2%; 50rm ± 1%
Density	approx. 20 kg/m³
Incisions	every 1 cm

Edge Strips
ON BUTYL

TECHNICAL SPECIFICATION	
Thickness	8 mm
Width	13-16 cm
Length	25rm ± 2%; 50rm ± 1%
Density	approx. 20 kg/m³
Glue	3 cm wide
Incisions	every 1 cm
Foil width – overlaps	20 cm

ACCESSORIES

TUBE CLAMPS

SIZE (mm)	COLOUR	PACKAGING
45 (±2)	black	100pcs, 200pcs or 500pcs

TUBE CLAMPS
in stapler loads

SIZE (mm)	COLOUR	PACKAGING
38 (±2)	blue	10 x 30pcs (300pcs)
45 (±2)	black	10 x 50pcs (500pcs)
60 (±2)	black (welded)	20 x 25pcs (500pcs)

SINGLE PLUG CLAMP

SIZE (mm)	COLOUR	PACKAGING
8 x 48	black or white	100pcs
8 x 77	black or white	100pcs
10 x 100	black or white	100pcs

DOUBLE PLUG CLAMP

SIZE (mm)	COLOUR	PACKAGING
8 x 48	black or white	100pcs
8 x 77	black or white	100pcs
10 x 100	black or white	100pcs

PIPE CLAMP FOR CU PIPE
a wall anchor and a screw

SIZE (mm)	COLOUR	PACKAGING
15	white	50pcs
18	white	50pcs
22	white	50pcs
28	white	50pcs

DUOBLE PIPE CLAMP FOR CU PIPE
a wall anchor and a screw

SIZE (mm)	COLOUR	PACKAGING
15	white	50pcs
18	white	50pcs
22	white	50pcs
28	white	50pcs

FAST MONTAGE CLIPS

SIZE (mm)	COLOUR	PACKAGING
37	red	100pcs

UFH RAIL

SIZE (mm)	DŁUGOŚĆ	COLOUR	PACKAGING
16-18	100 cm	black	100pcs / 1m.

The rail is also available in a self-adhesive version

CLIP
to rail

SIZE (mm)	COLOUR	PACKAGING
45	red	100pcs

GUIDING ARCH

SIZE (mm)	COLOUR	PACKAGING
14-18mm	grey	100pcs

SELF-ADHESIVE TAPE
for underfloor heating boards

SIZE (mm)	COLOUR	PACKAGING
48mm x 60m	white	1pcs

TACKER

COLOUR	PACKAGING
Silver	1pcs

T-80 EXPANSION BEAD MOVEMENT JOINT PROFILE

HEIGHT	WIDTH	LENGTH
80mm	30mm	2000mm

As part of the company's development, we launched a state-of-the-art weaving department to supply our customers with coated fabrics and agro fabrics.

FOLLOW US

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