

KARDO WATERPANEL XL

* * * radiant heating & cooling without screed * * *

TECHNICAL DOCUMENTATION

Product description:

KARDO Waterpanel XL is an Insulation Board with an XPS rough core with grooves, for underfloor heating pipes installation. All is covered by aluminium foil to increase the thermal conductivity.

Application:

KARDO Waterpanel XL is an Insulation Board, designed to be used as an insulation material for water radiant heating/cooling (floor, wall or ceiling). It's designed to not require screed but flex adhesive, which will be placed on the surface of the insulation board means, that tiles or other type of coverings can be laid straight on top.

Product features:

KARDO Waterpanel XL is an exceptionally durable and easy to cut Insulation Board. This board can be installed in damp areas and has superb insulation properties. This system facilitates an increase in heating efficiency (the warm-up time is shorter) and decrease the running cost.

Preparing the base:

The building base must be load-bearing, stable, levelled and dust and grease free. Old layers of oil and paints must be removed.

Installation:

The first step is to lay PE foil 0.2 mm thickness along the wall partitions of a room with an edge band or styrofoam / wool. Next, lay KARDO Waterpanel XL boards and standard XPS boards on the areas which won't require the radiant heating system. If the floor or wall heating system requires insulation boards which are thicker than 30 mm, then a layer of standard rough XPS is required to be underneath this system;

Cut the aluminum foil on the bends and edge line if you need to make a loop or return of the heating pipe. Install the pipes by pressing them into the 16 mm diameter grooves. NOTE: It is recommended to form coils into a meander-like shape, which is efficient up to 80 m of the pipe on one heating installation. If there is a need to use longer pipes, it is possible to create the next heating surface with pipe up to 80 m. Due to the possibility of the boards lifting during the laying of the water pipes, they are allowed to be fastened to the base with pins or wood screws with washers;

Connect the pipes to distributors and a pumping set for surface heating.

Installation for laminate flooring:

On the surface of KARDO Waterpanel XL, after inserting the pipes into the grooves, arrange suitable underlay and proceed to the assembly of laminate flooring in accordance with the producer's recommendations.

Installation for ceramic tiles:

Floor finishes like tiles can be laid directly on top of the boards, using KARDO Proof adhesive with thickness minimum 2 mm. KARDO Proof adhesive is recommended for installation, as written on the pack. Please consult KARDO Insulation before using another brand of an adhesive.

Approvals:

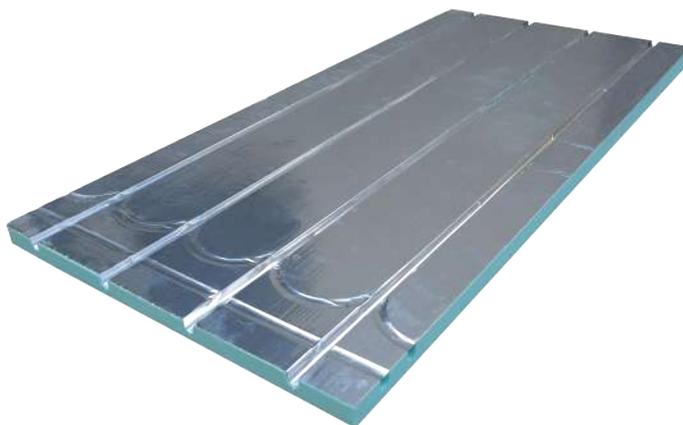
Declaration of performance for XPS insulation boards. Polish Law regarding building materials. Dated: 16 of April 2004 Dz.U. Nr 92 poz 881, art.10.

Dimensions:

Length x Width:.....1250 x 600 mm (+/-10mm)
Thickness:.....30 mm (+/-2mm)
Distance between grooves..... 150 mm (+/-2mm)

Technical data:

Weight:.....1.20 kg/unit (+/- 10%)
Thermal conductivity:.....< 0.034 W/mK
Water absorption (24h):.....< 0.1%
Density:.....> 34 kg/m³
Compressive strength at 10% deflection:.....> 300 kPa
Aluminum thickness:..... 50 microns
Detachment strength:.....> 300 kPa
Shear strength:.....> 600 kPa
Reaction to fire:.....Euro class E
Working temperature:.....- 40°C to +75°C



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DISTRIBUTOR: