KNAUF Therm EXPERT HYDRO EPS 100 λ 36 (EPS 100)

KNAUF Therm EXPERT Hydro EPS 100 λ 36 polystyrene panels are designated by the following code according to standard EN 13163:2012+A1:2015:

KNAUF Therm EXPERT Hydro EPS 100 λ 36

EPS- EN 13163-T(1)-L(2)-W(2)-S(2)-P(5)-BS150-CS(10)100-DS(N)2-DS(70,-)1-DLT(1)5-WL(T)2

PURPOSE

KNAUF Therm EXPERT Hydro is a product that can be used in many ways while meeting all requirements posed towards modern thermal insulation materials. The panel's compressive strength and low water absorbability are its main strengths considering its intended application.

These panels are primarily applied for:

- Thermal insulation of underground structural elements - up to 3m depth
- Thermal insulation of socles according to BSO
- insulation of linear thermal bridges
- drainage (along with additional unwoven fabric)
- thermal insulation of roods with inverse layer configuration

KNAUF Therm EXPERT Hydro EPS 100 λ 36 polystyrene panels are suitable for application at locations in which maximum functional loads do not exceed 30kN/m^2(3000 kg/m^2)

GUIDELINES FOR FASTENING KNAUF Therm EXPERT Hydro PANELS

The surface of a KNAUF Therm EXPERT Hydro panel has a texture that provides optimal adhesion of plasters, putties and glues. Thanks to edges with a Z-lock, thermal bridges are eliminated and the labor consumption of insulation work is reduced. The surface of a KNAUF Therm EXPERT Hydro panel, in the form of a fine mesh, facilitates cutting and laying of panels. It also facilitates water runoff, additionally improving the partition's thermal properties. When used on a wall as a drainage panel, a water runoff index of 0.3 l/s*m is achieved.

KNAUF Therm EXPERT Hydro insulation panels can be cut to a precise fit by means of a heat knife, ordinary knife or similar tool. Panel installation time amounts to approx. 3 minutes per m^2 - "brickwork" laying on existing hydro-insulation.

Panels are fastened to foundation walls according to the "point method" by means of bituminous glue that does not contain solvents (number of gluing points according to glue manufacturer's guidelines). It is recommended to lay panels with the KNAUF inscription facing the exterior, although no error is committed by doing the opposite. In the case of drainage, filtering unwoven fabric must always be used!
In the case of cohesive soil types, it is recommended to lay a separating layer on the panel (e.g. filtering unwoven fabric). On one hand, it prevents transfer of soil subsidence to the insulation, and on the other, it allows for flow of soil moisture over the surface of our panels and its controlled drainage to peripheral drainage and to the collector.

KNAUF Industries Polska Sp. z o.o.
Ul. Styropianowa 1, 96-320 Mszczonów
Tel.: +48 46 857 06 17 Fax : +48 46,857 06 11
E-mail: info@knauf-industries.com, www.styropianknauf.pl
NIP 581-10-30-150, REGON 170284669

ATTENTION

Do not use panels in direct contact with substances that act destructively on polystyrene, e.g. organic solvents (acetone, nitroglycerin, benzene, etc.)

TECHNICAL DATA

λ_D Thermal conductivity coefficient W/(mK)	≤ 0.036
Depth of application [m]	up to 3
Edge shape	Rectangular - overlap
Dimensions [mm]	1000 x 500
Thickness [mm]	50, 60, 80, 100.120
Self-extinguishing capacity	SELF-EXTINGUISHING
Class of reaction to fire	E
Bending strength [kPa]	BS 150 (≥ 150)
Water absorbability over the course of long-term total immersion (28 days)	2%
Compressive stress at 10% deformation [kPa]	CS(10)100 (≥ 100)

PACKAGING, STORAGE, TRANSPORT

KNAUF Therm EXPERT Hydro EPS 100 λ 36 polystyrene panels are only delivered in the manufacturer's, i.e. KNAUF Industries, original packaging. A product's packaging contains information concerning: product name, name of manufacturer, production date, Polish Standard no. EN 13163:2012+A1:2015, code according to standard, and declared technical parameters.

KNAUF Therm EXPERT Hydro EPS 100 λ 36 polystyrene panels are to be stored in a manner that protects them against mechanical damage and the weather.

KNAUF Therm EXPERT Hydro EPS 100 λ 36 PACKAGING					
Panel thickness [mm]	50	60	80	100	120
Number of panels per package	12	10	7	6	5
Thermal resistance R_D [m^2*K/W]	1.35	1.60	2.15	2.65	3.20

KNAUF Therm EXPERT Hydro solves many problems at the construction site

1) Insulation of thermal bridges (shuttering insert and prime coat for plasterwork)

KNAUF Therm EXPERT Hydro panels, as insulation of thermal bridges in temporary shuttering (e.g. near lintels, binding joists, pillars and shuttering of tie beams), are laid tightly in contact with one another in a tesselated manner. Their rectangular edge shape reduces the amount of waste.

2) Socle

Thanks to their high compressive strength, KNAUF Therm EXPERT Hydro panels find applications as insulation of exterior walls by means of thermal insulation systems in the socle area, which is exposed to impacts. Their rectangular edges enable optimal laying of panels in terms of labor consumption and amount of waste. Insulation panels are to be fastened (gluing or installation by means of anchor plugs) according to the guidlines of the insulation system's manufacturer. When spreading plaster and linings on panel surfaces, follow the guidelines of manufacturers of plaster mixtures.

3) Exterior basement wall

For proper application of panels on underground elements of a building, functional anti-moisture insulation must be made on their surface beforehand. Regardless of the intended scope of application, KNAUF Therm EXPERT Hydro panels may never perform the role of anti-moisture insulation. In any case, however, the existing insulation is protected against the action of harmful factors from the soil (protection of underground walls).

4) Inverted roof

In a roof with an inverted layer system, the thermal insulation material is in the wet zone. KNAUF Therm EXPERT Hydro panels are laid on the existing watertight layer, which protects hydro-insulation against mechanical damage.

For proper application of panels on underground elements of a building, functional anti-moisture insulation must be made on their surface beforehand.

Advantages for the ...

... seller

- lower demand for warehouse space
- only one product that meets several needs of customers at the same time can be stored
- lower storage costs, meaning lower capital consumption
- the KNAUF Therm EXPERT Hydro panel can replace many other products
- constant availability of a sufficient quantity of material from the manufacturer
- possibility of a greater number of loading/unloading operations due to greater mechanical strength

... contractor

- lower costs and capital consumption
- the KNAUF Therm EXPERT Hydro panel has universal applications at construction sites
- lower demand for storage area at the construction site
- possibility of incorporating inappropriate material eliminated - the KNAUF Therm EXPERT Hydro panel is suitable for nearly all applications
- its porous texture facilitates cutting to fit and insulation of elements.

... architect

- savings for investors
- certainty and safety in planning and supervising works
- facilitation of design work - only one product is used for several different scopes of work.

KNAUF Industries Polska Sp. z o.o.
Ul. Styropianowa 1, 96-320 Mszczonów
Tel.: +48 46 857 06 17 Fax : +48 46,857 06 11
E-mail: info@knauf-industries.com, www.styropianknauf.pl
NIP 581-10-30-150, REGON 170284669