

# AQUA PASSIVE EPS-P 100

Graphite EPS boards with reduced water absorption



λ 0,031 W/mK



working load below 3,0 t/m<sup>2</sup>



insulation of partitions exposed to water



low water absorption



low-energy construction

### **DESCRIPTION**

AQUA PASSIVE EPS-P 100 polystyrene boards comply with the following standard code: EN 13163:2012. EPS-EN 13163-T1-L3-W2-Sb2-P5-BS150-CS(10)100-DS(N)2-DS(70,90)1-DLT(1)5-WL(T)2-WD(V)3.

They are produced with the use of automated technology.

Accessible sizes: 1230x615 [mm]

Board thickness: from 50 [mm], in increments of 10 [mm]

Edges' trim: overlapping (trim size - 15 [mm]).

### ATTENTION

- The polystyrene boards should not come into direct contact with substances harmful to polystyrene, e.g. organic solvents such as acetone, benzene, turpentine or gasoline.
- The polystyrene boards should be stored protected from damages and exterior conditions.
- Due to higher absorption of UV radiation graphic boards should be protected from direct exposure to the sun during transportation, as well as in storage within construction sites.

### **SALES TO DISTRIBUTORS**

Contact for distributors of building materials. Information about where to buy products.

yetico.com/contact

### SALES TO INVESTORS

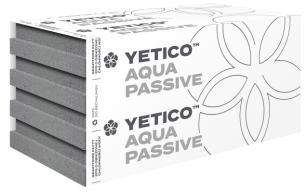
Contact for investors (business and individual), contractors, architects, and designers.

yetico.com/contact



### **BASIC USES**

- Thermal insulation of surfaces under working load below 3,0 t/m²
- Thermal insulation of structural ceilings and floors in humid areas
- Thermal insulation of foundation walls
- Thermal insulation of unused roofs
- Thermal insulation of green roofs



### INSTALLATION

- Boards produced by automated method require additional mechanical fastening above the level of the ground.
- Graphite polystyrene boards require additional protection upon installation. Direct exposure of the product to UV is destructive to the polystyrene surface, therefore protection sheets in scaffolds are recommended. Exposure of polystyrene graphite boards to intensive working of UV is not recommended neither before their installation, nor right after it.

### **DOCUMENTS**

- Declaration of performance no. 23-DoP-2018 with the standard code EN 13163:2012.
- Hygienic approval EPS-P no. HK/B/0921/01/2015.

## THERMAL RESISTANCE - dependent on product thickness

									Thic	kness [	mm]									
50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250
	Thermal resistance RD [m²K/W]																			
1,60	1,90	2,25	2,55	2,90	3,20	3,50	3,85	4,15	4,50	4,80	5,15	5,45	5,80	6,10	6,45	6,75	7,05	7,40	7,70	8,05



# PACKAGING METHOD

Specification								Boards'	' coveri	ng area	- 1215	x 600 [	mm], 0,	729 [m²	1						
-					Volum	e of pa	ckages,	size of b	oards a	and num	ber of it	tems pe	r packa	ge depe	nd on b	oard thi	ckness				
Thickness [mm]	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250
Items per package	10	8	7	6	5	5	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2
Package volume [m³]	0,365	0,350	0,357	0,350	0,328	0,365	0,321	0,350	0,284	0,306	0,328	0,350	0,248	0,262	0,277	0,292	0,306	0,321	0,335	0,350	0,365
Covering area of package [m²]	7,29	5,83	5,10	4,37	3,65	3,65	2,92	2,92	2,19	2,19	2,19	2,19	1,46	1,46	1,46	1,46	1,46	1,46	1,46	1,46	1,46

### **PARAMETERS**

Board type	AQUA EPS-P 100

Product code (declared level or class properties of products)

EPS-EN 13163-T1-L3-W2-Sb $_2$ -P5-BS150-CS(10)100-DS(N)2-DS(70,90)1-DLT(1)5-WL(T)2-WD(V)3

Declared product properties conform to EN	Measuring	Requirements	or tolerances		
13163:2012 standard	unit	Class or level codes	Values		
Thickness (dimensional tolerance class)	[mm]	T1	1		
Length (dimensional tolerance class)	[mm]	L3	3		
Width (dimensional tolerance class)	[mm]	W2	2		
Rectangularity over the length and width (dimensional tolerance class)	[mm/mm]	S <sub>b</sub> 2	2/1000		
Flatness (dimensional tolerance class)	[mm]	P5	5		
Flexural strength levels	[kPa]	BS150	150		
Compressive strength at 10 % deformation	[kPa]	CS(10)100	100		
Classes of dimensional stability under constant laboratory conditions <sup>1</sup>	[%]	DS(N)2	0,2		
Levels of dimensional stability under constant temperature and humidity conditions <sup>2</sup>	[%]	DS(70,90)1	1		
Deformation levels under specified compressive load and temperature <sup>3</sup>	[%]	DLT(1)5	5		
Water absorption level under total, long-term immersion - examination performed according to PN-EN 12087, item 7.2.2, method 2A – i.e. a sample immersed completely for a trial period of 28 days.	[%]	WL(T)2	2		
Water absorption level under long-term diffusion	[%]	WD(V)3	3		
Declared thermal conductivity rate	[W/(m·K)]	[-]	0,031		
Reaction to fire	from A to F	Euroclass	E		

<sup>&</sup>lt;sup>1</sup> measured in 23°C, 50% relative moisture,



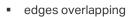
<sup>&</sup>lt;sup>2</sup> measured in temperature of 70°C for the duration of 48 hour,

 $<sup>^3</sup>$  measured in temperature of 80°C for the duration of 48 hours, under 20 kPa load

# CHARACTERISTICS OF THE BOARDS

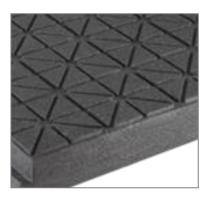


 every item is manufactured separately in a mold





 imprinted scale to facilitate the cutting of boards



 dense network of drainage channels

# ADVANTAGE OF AUTOMATED TECHNOLOGY

Boards cut from their edges	Boards individually formed	What does it mean?
Lower cohesion	Higher cohesion	Higher cohesion means bigger density of granules. Therefore, less water permeates into foamy polystyrene granules. This results in much lower water absorption in long-term exposure to water.
Lack of drainage surface or milled drainage surface	Molded drainage surface	In automated technology all board with its drainage surface is molded. Boards cut from blocks either lack this surface or have it milled and therefore absorb water more easily.
Lower dimensional stability	Higher dimensional stability	In automated technology much less water vapor is used for production, and a ready-made board is put out. There is no tensile stress. All these result in dimensional stability acquired in a short time. In block technology the time span is extended by the seasoning of boards.



# AQUA PASSIVE

# **HEADQUARTERS**

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