

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Trade name of the product: Bekatherm EPS Grafit

Details of the manufacturer:

Banja Komerc Bekament DOO
Kralja Petra Prvog 132, Banja, Arandelovac
34304 Banja
tel. 034-6777-500
fax. 034-6777-505
e-mail: office.prodaja@bekament.com

Contact data for preparation of TDS:

e-mail: lena.djuric@bekament.com
kk.eps@bekament.com

2. DESCRIPTION AND FIELD OF APPLICATION

Bekatherm EPS Grafit is a facade thermal insulation board with improved performance compared to standard facade thermal insulation boards. It is characterized by lower thermal conductivity with increased mechanical strength. Thermal characteristics are improved by 20%.

Bekatherm EPS Grafit are boards made of expanded polystyrene with addition of graphite, whereby production process is in accordance with SRPS EN 13163.

It is intended for installation in External Thermal Insulation Composite Systems (ETICS), and depending on mechanical, safety and thermal requirements it can be used as a thermal insulation layer in sandwich panels, sandwich walls, for thermal insulation of interior walls, ceilings and roofs.

3. COMPOSITION

Chemical composition: Expanded polystyrene (polymer compound).

4. TECHNICAL CHARACTERISTICS

Board dimensions: Dimensions of the boards are 100 x 50 cm, from 2 to 20 cm of thickness. Production of boards of different dimensions is possible at special request by the buyer.

Packaging of boards: Boards are packaged in packages – bales of volume from 0,17m³ to 0,25m³ (depending on the thickness of the packed boards), wrapped with opaque PE foil.

Application temperature: up to 80°C

Product label key: EPS-EN 13163-L2-W2-T1-S2-P5-DS(N)2-DS(70,90)1-CS(10)70-BS150-TR150-WL(T)2,5

Characteristics	Designation	Unit	Declared	Tolerance	Harmonized technical specification
Length	L	mm	L2	±2	EN 822
Width	W	mm	W2	±2	EN 822
Thickness	T	mm	T1	±1	EN 823
Squareness	S	mm/m	S2	±2	EN 824
Planarity	P	mm	P5	±5	EN 825
Dimensional stability	DS(N)	%	DS(N)2	±0,2	EN 1604
Dimensional stability at certain temp. and humidity	DS(70,90)	%	DS(70,90)1	≤1	EN 1604
Compressive strength at 10% deformation	CS(10)	kPa	CS(10)80	≥80	EN 826
Tensile strength perpendicular to the surface	TR	kPa	TR150	≥150	EN 1607
Bend strength	BS	kPa	BS150	≥150	EN 12089
Long-lasting water absorption during immersion	WL(T)	%	WL(T)2,5	≤2,5	EN 12087
Coefficient of thermal conductivity	λ _D	W/mK	0,031	/	EN 12667
Fire reactivity	/	/	Euroclass E	/	EN 13501-1

Board thickness, mm	d	20	30	40	50	60	70	80	90	100	110
Lambda/thickness W/m ² K	λ _D /d	1,55	1,03	0,78	0,62	0,52	0,44	0,39	0,34	0,31	0,28
Heat resistance, m ² K/W	R _D	0.65	0.95	1.25	1.60	1.90	2.25	2.55	2.90	3.20	3.55

Board thickness, mm	d	120	130	140	150	160	170	180	190	200
Lambda/thickness W/m ² K	$\lambda_{D/d}$	0.26	0.24	0.22	0.21	0.19	0.18	0.17	0.16	0.16
Heat resistance, m ² K/W	R _D	3.85	4,15	4.50	4.80	5.15	5.45	5.80	6.10	6.45

5. OTHER CHARACTERISTICS

Appearance: Gray color, compact material.

Odor: Mild unpleasant odor may appear only when cut with hot tools. The odor and the minimum vapor are non-hazardous.

6. INSTALLATION

The product is installed in accordance with the instructions for installation of the External Thermal Insulation Composite Systems (ETICS), as well as the general rules for the execution of thermal insulation works in construction.

7. HANDLING AND STORAGE

No special precautions are required when using.

Material should not be accessible to children under seven years of age without supervision.

Store in covered areas, away from heat sources and flames. Do not expose to UV rays. Prevent contact with incompatible chemicals and materials (organic solvents, oil, etc.).

8. PERSONAL PROTECTION

Respiratory protection: Not required

Hand and body protection: In case of repeated skin contact preventive use of protective gloves is recommended.

Eye protection: Does not irritate the eyes even if part of the product gets into contact with the eye. Safety goggles can be used as a preventive measure.

Fire protection: Dry extinguishing agents, light foam and water fog are recommended.

9. ECOTOXICOLOGICAL INFORMATION

Based on experience and existing information, no harmful health effects are known if used properly.

10. DISPOSAL METHOD

In accordance with local / regional / European / national regulations.

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11. OTHER INFORMATION

If the contractor notice some aesthetic or application defect during the installation of the material, he is obliged to suspend the works and notify the manufacturer thereof, which shall as soon as possible take the complaint into the consideration. Objections in relation with the above characteristics sent to the manufacturer after the installation of the most or the entire quantity of the product, cannot be the subject of complaint.

12. NOTES

Banja Komerc Bekament DOO performs product control through its own laboratories, as well as regular testing in certified laboratories. The Technical Data Sheet is a product of our knowledge and practical experience so far and should serve to all users as a recommendation for best results. If the weather and other conditions are different from those in our instructions, our instructions should be taken as general guidelines, without the warranty for installation.

Banja Komerc Bekament DOO does not assume any responsibility for any damage caused by improper use or incorrect choice of product, as well as for low-quality execution of works. It is assumed that the contractor has mastered the techniques of installation and use of various products.

We shall not be bound by anything written.

This document supersedes all previous versions which are considered void from the date of preparation stated herein.

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Chapters amended: 1 i 4