

Chorzów, 29.07.2024

Technical data sheet

Polystyrene panels EPS 031 PRO LAMBDA SUPER



DESCRIPTION:

EPS 031 PRO LAMBDA SUPER

Code of designation: EPS EN 13163 T(1)-L(2)-W(2)-S_b(5)-P(5)-BS115-DS(N)2-DS(70,-)2-TR100

The product complies with harmonised standard applicable for this product type: EN 13163:2012+A1:2015 Thermal insulation products for buildings – Factory made expanded polystyrene (EPS) products – Specification.

Panels manufactured by polystyrene foaming method and designed for thermal insulation of walls, including thermal insulation of façades.

Standard dimensions of panels: 1000 x 500 mm. Customised dimensions on request.

Panel thickness: 10 – 500 mm

Panels can be manufactured with even or finely-milled edges.

USE:

EPS 031 PRO LAMBDA SUPER polystyrene panels made of expanded polystyrene are used in insulations requiring transfer of medium mechanical loads, including but not limited to:

- insulation of walls in external thermal insulation composite systems ETICS (light-wet method),
- insulation of multi-layer walls with ventilated and unventilated air gap,
- insulation of stud walls with facing,
- insulation of ceilings from underneath,
- insulation of floors between joists,
- insulation of expansion gaps.

Polystyrene panels should be used according to the manufacturer's recommendations, guidelines defined in construction design and rules of the trade which means that investment should be implemented in accordance with any and all legal and technical regulations applicable in the construction industry, while maintaining due diligence and taking advantage of the best professional knowledge. Do not use panels in a direct contact with substances having a destructive effect on EPS polystyrene, e.g. organic solvents (acetone, benzene, nitro), etc. Due to the increased heat absorption of EPS 031 PRO LAMBDA SUPER polystyrene panels, it is recommended that before fixing:

- sand the panels with special grinders on the glued side,
- protect both the substrate and the polystyrene panels from sunlight.

In order to protect the polystyrene panels from direct sunlight during insulation work, it is recommended to use scaffolding nets.

PACKING, STORAGE, TRANSPORT :

EPS 031 PRO LAMBDA SUPER polystyrene panels are delivered only in original Manufacturer's packaging. Polystyrene panels should be stored in a manner preventing them against damage, and protected against direct effect of weather conditions (UV radiation) which destructively affect the surface of polystyrene.

Leaving polystyrene for a longer time with no cover can cause tarnish to appear over its surface. In such case before application of panels it is necessary to remove the tarnish by grinding.

Documentation

- Declaration of Performance no. 06/S032F
- Information on EPS safety and operation

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PERFORMANCE:

Essential characteristics for the intended use, for thermal insulation in the construction industry	Declared performance, class or level
Dimensional tolerance class: thickness, length, width, rectangularity, flatness	T1 (± 1 mm) L2 (± 2 mm) W2 (± 2 mm) S _b 5 (± 5 mm/1 m) P5 (5 mm)
Bending strength	BS 115 ≥ 115 kPa
Dimensional stability under constant normal laboratory conditions	DS(N)2 ± 0,2 %
Dimensional stability under specific conditions – temperature 70 °C, 48 h	DS(70,-)2 ≤ 2 %
Tensile strength	TR100 ≥ 100 kPa
Declared thermal conductivity coefficient λ _D	0,031 W/(m K)
Thermal resistance R _D	Table 2
Reaction-to-fire class	E

Table no. 2 Summary of thermal resistance as a function of thickness

Thickness, d _N [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Thermal resistance R _D [m ² K/W]	0.30	0.60	0.95	1.25	1.60	1.90	2.25	2.55	2.90	3.20	3.50	3.85	4.15	4.50	4.80
Thickness, d _N [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
Thermal resistance R _D [m ² K/W]	5.15	5.45	5.80	6.10	6.45	6.75	7.05	7.40	7.70	8.05	8.35	8.70	9.00	9.35	9.65

Standard dimensions of panels: 1000 x 500 mm.

Table no. 3 Packaging

PANEL THICKNESS (m)	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15
PACKAGE VOLUME (m ³) even edges	0.300	0.300	0.300	0.300	0.300	0.300	0.280	0.280	0.270	0.300	0.275	0.300	0.260	0.280	0.300
PACKAGE VOLUME (m ³) finely-milled edges	-	-	-	-	0.282	0.282	0.263	0.263	0.254	0.282	0.259	0.282	0.245	0.263	0.282
PANEL AREA (m ²) even edges	30.00	15.00	10.00	7.50	6.00	5.00	4.00	3.50	3.00	3.00	2.50	2.50	2.00	2.00	2.00
PANEL AREA (m ²) finely-milled edges	-	-	-	-	5.64	4.70	3.76	3.29	2.82	2.82	2.35	2.35	1.88	1.88	1.88
NUMBER OF PANELS IN PACKAGE (pcs)	60	30	20	15	12	10	8	7	6	6	5	5	4	4	4
PANEL THICKNESS (m)	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30
PACKAGE VOLUME (m ³) even edges	0.320	0.255	0.270	0.290	0.300	0.315	0.220	0.230	0.240	0.250	0.260	0.270	0.280	0.290	0.300
PACKAGE VOLUME (m ³) finely-milled edges	0.301	0.240	0.254	0.273	0.282	0.296	0.207	0.216	0.226	0.235	0.245	0.254	0.263	0.273	0.282
PANEL AREA (m ²) even edges	2.00	1.50	1.50	1.50	1.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PANEL AREA (m ²) finely-milled edges	1.88	1.41	1.41	1.41	1.41	1.41	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
NUMBER OF PANELS IN PACKAGE (pcs)	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2

