

Chorzów, 30.09.2022 r.

Technical data sheet

Polystyrene panels EPS 032 PRO LAMBDA



DESCRIPTION:

EPS S 032 PRO LAMBDA

Code of designation: EPS EN 13163 T(1)-L(2)-W(2)-S_b(5)-P(5)-BS100-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 032 PRO LAMBDA polystyrene panels applied in insulations which require shifting of extensive mechanical load, among others.:

- 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 tie beams as formwork lost for plaster,
- insulation of windowsill reinforcements and window reveal,
- insulation in external prefabricated sandwich panels,
- insulation of ceiling from below in external thermal insulation composite systems ETICS,
- Insulation of steep roofs under bearing structure.

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 by EPS 032 PRO LAMBDA polystyrene panels, it is recommended to protect both the substrate and EPS 032 PRO LAMBDA polystyrene panels against direct sunlight before fixing the panels. In order to protect polystyrene panels against sunlight during thermal insulation works, it is recommended to use nets on scaffoldings.

PACKING, STORAGE, TRANSPORT:

EPS 032 PRO LAMBDA 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

PaNELTECH Sp. z o.o.

ul. Michałkowska 24
41-508 CHORZÓW
tel: 32 245 91 41
info@paneltech.pl

NIP: 627 00 12 306
Kapitał zakładowy: 210 000 zł.
Sąd Rejonowy w Katowicach Wydział Gospodarczy KRS Nr: 0000105517
ING Bank Śląski S.A. Oddział Bytom: 10 1050 1230 1000 0002 0000 3721



PANELTECH.PL

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/1m) P5 (5 mm) |
| Bending strength | BS 100 ≥ 100 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 | 0,032 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 | 0,90 | 1,25 | 1,55 | 1,85 | 2,15 | 2,50 | 2,80 | 3,10 | 3,40 | 3,75 | 4,05 | 4,35 | 4,65 |
| 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] | 5,00 | 5,30 | 5,60 | 5,90 | 6,25 | 6,55 | 6,85 | 7,15 | 7,50 | 7,80 | 8,10 | 8,40 | 8,75 | 9,05 | 9,35 |

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 |

