

Technical data sheet 18-05/25

* information for customer purpose only

GRADIPOR WHITE EPS F

Thermal insulation product

Product description *GRADIPOR White EPS F is a thermal insulation board made of white expanded polystyrene (EPS). Does not contain freon (CFC free / FCKW frei) and does not contain HBCD.*

Product features *The product meets the requirements of the EN 13163:2012+A2:2016 standard*
- Format: 1000 x 500 x dN [mm], 1000 x 1000 x dN [mm], 2000 x 1000 x dN [mm]
- Description: white boards, straight edges (optional: half-lap joint)

Designation code *according EN 13163:2012+A2:2016*

EPS-EN 13163-T2-TR120-WL(P)0,1-WL(T)1,5

| Essential and relevant characteristic | EN Method | Unit | EN 13163:2012+A2:2016 | |
|---|------------|-------------------|-----------------------|--------------|
| | | | Declaration | Tolerance |
| Thermal conductivity ^a | EN 12667 | W/m·K | $\lambda = 0,036$ | $\leq 0,036$ |
| Length ^b | EN 822 | mm | L2 | ± 2 |
| Width ^b | EN 822 | mm | W2 | ± 2 |
| Thickness ^a | EN 823 | mm | T2 | ± 2 |
| Squareness ^b | EN 824 | mm/m | S2 | ± 2 |
| Flatness ^b | EN 825 | mm | P5 | ± 5 |
| Reaction to fire ^a | EN 13501-1 | | Euroclass E | / |
| Dimensional stability at normal lab conditions ^b | EN 1603 | % | DS(N)2 | $\pm 0,2$ |
| Dimensional stability at 70° C ^b | EN 1604 | % | DS(70,-)1 | ≤ 1 |
| Compressive stress at 10% deformation ^b | EN 826 | kPa | CS(10)60 | ≥ 60 |
| Bending strength ^b | EN 12089 | kPa | BS115 | ≥ 115 |
| Tensile strength perpendicular to faces ^a | EN 1607 | kPa | TR120 | ≥ 120 |
| Long term water absorption by total immersion ^a | EN 12087 | % | WL(T)1,5 | $\leq 1,5$ |
| Long term water absorption by partial immersion ^a | EN 12087 | kg/m ² | WL(P)0,1 | $\leq 0,1$ |
| Apparent density ^a | EN 1602 | kg/m ³ | 14,3 | / |
| ^a Values determined by Product Type Determination (PTD) in notified test laboratory. | | | | |
| ^b Values determined by Factory Production Control (FPC) in manufacturers laboratory. | | | | |

| | | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Nominal thickness, d_N [mm] | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| Thermal resistance, R_D [$m^2 \cdot K/W$] | 0,25 | 0,55 | 0,80 | 1,10 | 1,35 | 1,65 | 1,90 | 2,20 | 2,50 | 2,75 | 3,05 | 3,30 | 3,60 | 3,85 | 4,15 |
| λ/d ($W/m^2 \cdot K$) | 3,60 | 1,80 | 1,20 | 0,90 | 0,72 | 0,60 | 0,51 | 0,45 | 0,40 | 0,36 | 0,33 | 0,30 | 0,28 | 0,26 | 0,24 |
| Nominal thickness, d_N [mm] | 160 | 170 | 180 | 190 | 200 | 210 | 220 | 230 | 240 | 250 | 260 | 270 | 280 | 290 | 300 |
| Thermal resistance, R_D [$m^2 \cdot K/W$] | 4,40 | 4,70 | 5,00 | 5,25 | 5,55 | 5,80 | 6,10 | 6,35 | 6,65 | 6,90 | 7,20 | 7,50 | 7,75 | 8,05 | 8,30 |
| λ/d ($W/m^2 \cdot K$) | 0,23 | 0,21 | 0,20 | 0,19 | 0,18 | 0,17 | 0,16 | 0,16 | 0,15 | 0,14 | 0,14 | 0,13 | 0,13 | 0,12 | 0,12 |

Intended use

The product GRADIPOR White EPS F is used for external and internal insulation of building walls or filling in wall cavity, as well as for thermal insulation applications under terraces and hipped roofs, and cold storage rooms. It is especially preferred in passive home applications.

Installation method

GRADIPOR White EPS F thermal insulation panels are installed with adhesion and mechanical anchoring.

Line-point application: Along all edges of the board with a trowel apply a continuous strip of adhesive with a width of approx. 5 cm, in the middle of the board, adhesive is applied pointwise in three places with diameter approx. 15 cm. The adhesive application and the required contact surface with the substrate should be at least 40%.

Application linearly on the edges and in the middle: The glue is applied linearly along the edges and in the middle in the shape of the letter W. Necessary the contact surface of the adhesive with the base should be at least 40%.

Due construction site storage **the boards should not be subjected on direct sunbeam or hail** (enclosed or eaves and walls fenced storage room recommended). Due longer construction process it is highly recommended to **protect the boards from elements**.

Packaging/Storing

Wrapped within PE foil, approx. 0,25m³ per package. To be stored on a dry surface and protected from direct sunlight, moisture, frost, snow, mechanical damage, dirt and flame. It is necessary to avoid EPS contact with incompatible materials/chemicals.

Waste management

The product waste must be handled in accordance with the Waste Regulation. The residue or waste of the product is classified as non-hazardous waste, namely construction waste-plastic (17 02 03). Waste film belongs to waste plastic packaging (15 01 02).

Notified testing laboratory

ID No. 2032, NISI Bulgaria
ID No. 1404, ZAG Slovenia

Complying

The product complies with EN 13163:2012+A2:2016 and Regulation (EU) No. 305/2011. Declaration of Performance No. DoP-18-05/25

CE marking affixation