

## KNAUF Therm Pro Roof/Floor EPS 100 $\lambda$ 36 (TYP EPS 100)

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 polystyrene panels are designated by the following code according to standard EN 13163:2012+A1:2015

EPS –EN 13163-T(1)-L(2)-W(2)-S(2)-P(5)-BS150-CS(10)100-DS.(N)2-DS(70,-)1-TR150

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 insulation panels are manufactured according to the double polystyrene foaming method, thanks to which they have very good functional properties besides excellent insulating properties. These panels are intended for broad applications in thermal insulation of floors and roofs in buildings both old and new. Panels are manufactured in versions with or without a seam.

### PURPOSE

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 polystyrene panels are **manufactured according to European standard EN 13163:2012+A1:2015**, and their basic application is:

- **thermal insulation of floors over an underlayer of prefabricated panels**
- **thermal insulation of floors under floor underlayer**
- **thermal insulation of floors on ground**
- **thermal insulation of floors in floor heating systems**
- **thermal insulation of full and ventilated flat roofs**
- **as layered panels for walls and roofs with building paper linings**
- **thermal insulation of socles in ETICS**

### GUIDELINES FOR FASTENING FLOOR PANELS

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 polystyrene panels are to be applied according to the manufacturer's guidelines and guidelines in construction designs.

Before commencing installation of KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 panels, check the condition of the substrate. The substrate should be flat and dry, otherwise it should be leveled. Panels installed directly on the ground require anti-moisture insulation in the form of sealing masses, bituminous masses, PE films, or underlayer building paper.

A separating layer in the form of PE film is recommended for floor slabs between storeys. Expansion tapes are used at the point of contact of a floor slab with a wall.

Panels are laid starting from the corner. The first row of panels is to be laid from the wall and pressed to expansion tapes. The next rows of panels are to be laid as "brickwork", avoiding intersection of panel joints. After thermal insulation has been laid down, panels are to be covered with PE film with a thickness of at least 0.2 mm. The film protects insulation panels against moisture and penetration of the screed into the thermal underlayer.

**ATTENTION**

**Do not use panels in direct contact with substances that act destructively on polystyrene, e.g. organic solvents (acetone, nitroglycerin, benzene, etc.)**

**TECHNICAL DATA**

$\lambda_D$ Thermal conductivity coefficient W/(mK)	$\leq 0.036$
Edge shape	rectangular / seamed
Dimensions	1000 x 500mm max. dimensions: 4000 x 1200mm
Compressive stress at 10% deformation (kPa)	CS(10)100 ( $\geq 100$ )
Self-extinguishing capacity	SELF-EXTINGUISHING
Class of reaction to fire	E
Bending strength (kPa)	BS 150 ( $\geq 150$ )
Tensile strength (force applied perpendicularly to face surfaces) [kPa]	TR 150 ( $\geq 150$ )

**PACKAGING, STORAGE, TRANSPORT**

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 polystyrene panels are only delivered in the manufacturer's, i.e. KNAUF Industries, original packaging. The packaging contains information concerning: product name, name of manufacturer, production date, Polish Standard no. EN 13163:2012+A1:2015, code according to standard, and declared technical parameters.

KNAUF Therm PRO Roof/Floor EPS 100  $\lambda$  36 polystyrene panels are to be stored in a manner that protects them against mechanical damage and the weather.

Packaging		Thermal resistance	Standard format 1000*500 [mm]		Seamed panels 990*490 [mm]	
Panel thickness [mm]	Number of panels per package [pcs.]	R <sub>D</sub> [m <sup>2</sup> *K/W]	Package volume [m <sup>3</sup> ]	Covered area [m <sup>2</sup> ]	Package volume [m <sup>3</sup> ]	Covered area [m <sup>2</sup> ]
10	56	0.25	0.28	28	-	-
20	30	0.50	0.3	15	-	-
30	20	0.80	0.3	10	-	-
40	15	1.05	0.3	7.5	-	-
50	12	1.35	0.3	6	0.288	5.820
60	10	1.60	0.3	5	0.290	4.850
70	8	1.85	0.28	4	0.272	3.880
80	7	2.15	0.28	3.5	0.273	3.395
90	6	2.40	0.27	3	0.264	2.910
100	6	2.65	0.3	3	0.294	2.910
110	5	2.95	0.275	2.5	0.265	2.425
120	5	3.20	0.3	2.5	0.290	2.425
130	4	3.50	0.26	2	0.252	1.940
140	4	3.70	0.28	2	0.272	1.940
150	4	4.00	0.3	2	0.292	1.940
160	3	4.30	0.24	1.5	0.234	1.455
170	3	4.55	0.255	1.5	0.246	1.455
180	3	4.85	0.27	1.5	0.261	1.455
190	3	5.10	0.285	1.5	0.276	1.455
200	3	5.35	0.3	1.5	0.291	1.455
210	2	5.65	0.21	1	0.204	0.970
220	2	5.90	0.22	1	0.214	0.970
230	2	6.20	0.23	1	0.224	0.970
240	2	6.45	0.24	1	0.232	0.970
250	2	6.70	0.25	1	0.242	0.970
260	2	7.00	0.26	1	0.252	0.970
270	2	7.25	0.27	1	0.262	0.970
280	2	7.50	0.28	1	0.272	0.970
290	2	7.80	0.29	1	0.282	0.970
300	2	8.05	0.3	1	0.292	0.970