

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 (TYP EPS 70)

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 polystyrene panels are designated by the following code according to PN-EN standard EN 13163:2012+A1:2015

EPS EN 13163 T(1)-L(2)-W(2)-S(2)-P(5)-BS115-CS(10)70-DS(N)2-DS(70,-)1-TR100

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 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 Facade/Roof/Floor EPS 70 λ 38 polystyrene panels are **manufactured according to European standard EN 13163:2012+A1:2015**, and their basic application is:

- **exterior thermal insulation made using the "light wet" (BSO) method**
- **exterior thermal insulation made using the "light dry" method**
- **Thermal insulation on skeleton wall surface**
- **filling of expansion joints**
- **thermal insulation in closed gap of tri-layer wall**
- **thermal insulation in ventilated gap of tri-layer wall**
- **thermal insulation of tie beams, lintels and other thermal bridges**
- **thermal insulation of balcony loggias**
- **thermal insulation of window reveals and lintels**
- **thermal insulation of floors under floor underlayer**
- **thermal insulation of full and ventilated flat roofs**
- **as layered panels for walls and roofs with building paper linings**
- **thermal insulation of floors in water floor heating systems.**

GUIDELINES FOR FASTENING KNAUF Therm PRO Facade/Roof/Floor EPS 70 λ 38 PANELS

Before commencing installation of KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 panels, check the condition of the substrate. The substrate must be carrying, clean and degreased. Loose fragments poorly bound to the substrate are to be removed before gluing of polystyrene panels. The surface under facade panels should additionally be coated with a KNAUF Tieffengrund prime coat.

KNAUF GLUE FOR POLYSTYRENE or KNAUF FIBER-REINFORCED GLUE is to be used to glue KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38

It is recommended to use KNAUF FIBER-REINFORCED GLUE and KNAUF REINFORCING MESH to make the reinforced layer.

Shielding facade meshes should be used during work. KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 panels glued to the facade are to be protected against the direct action of sunlight and weather by using facade meshes on scaffolding.

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 graphite polystyrene has elevated resistance to UV radiation, however long-term, direct exposure to UV radiation may cause a yellowish tarnish on a panel's surface. This tarnish must be removed before execution of the reinforcing layer.

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 panels are installed directly on the ground, anti-moisture insulation in the form of sealing masses, bituminous masses, PE films, or underlayer building paper must be used.

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. In the case of water floor heating system, heating pipes are installed by special clips on panels covered with PE film. The thickness of the concrete screed should be increased by external diameter of heating.

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

λ_D Thermal conductivity coefficient W/(mK)	$\leq 0,038$
Edge shape	rectangular / seamed
Dimensions	1000 x 500mm max. dimensions: 4000 x 1200mm
Compressive stress at 10% deformation (kPa)	CS(10)70 (≥ 70)
Self-extinguishing capacity	SELF-EXTINGUISHING
Class of reaction to fire	E
Bending strength (kPa)	BS115 (≥ 115)
Tensile strength (force applied perpendicularly to face surfaces) [kPa]	TR100 (≥ 100)

PACKAGING, STORAGE, TRANSPORT

KNAUF Therm Pro Facade/Roof/Floor EPS 70 λ 38 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 Facade/Roof/Floor EPS 70 λ 38 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_D [$m^2 \cdot K/W$]	Package volume [m^3]	Panel thickness [mm]	Number of panels per package [pcs.]	R_D [$m^2 \cdot K/W$]
10	56	0,25	0,28	28	-	-
20	30	0,50	0,3	15	-	-
30	20	0,75	0,3	10	-	-
40	15	1,00	0,3	7,5	-	-
50	12	1,25	0,3	6	0,288	5,820
60	10	1,50	0,3	5	0,290	4,850
70	8	1,75	0,28	4	0,272	3,880
80	7	2,00	0,28	3,5	0,273	3,395
90	6	2,25	0,27	3	0,264	2,910
100	6	2,50	0,3	3	0,294	2,910
110	5	2,75	0,275	2,5	0,265	2,425
120	5	3,05	0,3	2,5	0,290	2,425
130	4	3,25	0,26	2	0,252	1,940
140	4	3,55	0,28	2	0,272	1,940
150	4	3,80	0,3	2	0,292	1,940
160	3	4,05	0,24	1,5	0,234	1,455
170	3	4,30	0,255	1,5	0,246	1,455
180	3	4,55	0,27	1,5	0,261	1,455
190	3	4,85	0,285	1,5	0,276	1,455
200	3	5,10	0,3	1,5	0,291	1,455
210	2	5,30	0,21	1	0,204	0,970
220	2	5,55	0,22	1	0,214	0,970
230	2	5,85	0,23	1	0,224	0,970
240	2	6,10	0,24	1	0,232	0,970
250	2	6,35	0,25	1	0,242	0,970
260	2	6,55	0,26	1	0,252	0,970
270	2	6,85	0,27	1	0,262	0,970
280	2	7,15	0,28	1	0,272	0,970
290	2	7,35	0,29	1	0,282	0,970
300	2	7,60	0,3	1	0,292	0,970