

TECHNICAL DATA SHEET

POLITERM BLU FEIN

Thermal insulation product for buildings

Product description

Blue expanded polystyrene (EPS) beads with the addition of the E.I.A. additive, which ensures good mixing of the ingredients into a homogeneous mixture and easy installation. It does not contain freons (CFC free / FCKW frei) and does not contain HBCD.

Product features

The material mixes perfectly with water and cement. The beads do not rise to the surface. The addition of the E.I.A. additive ensures reliable and homogeneous mixing of the components, as well as homogeneity in terms of thermal, acoustic and mechanical properties. It does not shrink during installation and hardening, is lightweight, easy to prepare and transport, has a controlled pH value, does not cause corrosion and other chemical reactions with the materials used with it.

Key features	Unit	Declared				
Bead diameter	mm	2				
Concrete density	kg/m ³	110	200	250	300	350
Thermal conductivity	W/m.K	0,043	0,065	0,067	0,08	0,103
Compressive stress	N/mm ²	0,528	0,69	1,61	1,69	1,69
Bending strength	N/mm ²	0,12	0,37	0,46	0,95	0,59
Vapor permeability	-	5,1	5,9	6,9	7,2	9,2
Reaction to fire according to EN-13501-1	-	A2-s1, d0				

Warning: For the preparation of lightweight concrete, Portland cement of strength class 32.5 CEM I or CEM II is recommended. If classical cement of strength class 42.5 R is used, more attention must be paid to curing the concrete during setting (preventing rapid drying, moistening).

THERMAL RESISTANCE OF LIGHTWEIGHT CONCRETE DEPENDING ON DENSITY AND LAYER THICKNESS:

Density [kg/m ³]	λ [W/m.K]	R [m ² .K/W]	Thickness [cm]								
			4	5	6	7	8	9	10	15	20
110	0,043		0,93	1,16	1,40	1,63	1,86	2,09	2,33	3,49	4,65
200	0,065		0,61	0,77	0,92	1,06	1,23	1,38	1,54	2,31	3,08
250	0,067		0,60	0,75	0,90	1,04	1,19	1,34	1,49	2,24	2,99
300	0,080		0,50	0,63	0,75	0,88	1,00	1,13	1,25	1,88	2,50
350	0,103		0,39	0,49	0,58	0,68	0,78	0,87	0,97	1,46	1,94

RECIPE FOR PREPARATION OF 1 m³ (1000 l)

Density [kg/m ³]	λ [W/m.K]	Cement [kg]	Water
110	5x 170l bag or 2x 420 l bag	110	55-65
200		200	80-100
250		250	100-125
300		300	120-150
350		350	140-175

Field of use

The product is used for the production of lightweight insulating concrete and:

- leveling gaps and cavities in old walls,
- base for floors in basements and ground floors, fillers under floors, between ceiling joists and between wooden floor structures,
- leveling floors above installation pipes before laying primary thermal insulation or panels in an underfloor heating system,
- insulation of floors in unused attics,
- base for industrial floors,
- insulation of pitched roofs and ecological renovation of asbestos-cement roofing and sheet metal roofs, etc.

The product is intended for industrial use only and is not intended for sale and use by consumers. It is intended for use in the production processes of plastic products or in capsules or in the final product itself.

Preparation

It can be prepared according to the recipe in a screed machine or in a concrete plant. The condition for preparing a good mixture with the appropriate properties is mixing for approx. 10 min. Smaller quantities can be prepared with a hand mixer for adhesives.

Application

Depending on the method of use, the product is installed by manual or machine application. Pumping to a height with a piston pump is not problematic, as the balls are elastic and are not damaged during installation, as is the case with expanded clay. When installing, the installation instructions and applicable professional and legal regulations must be followed.

Storage

The product should be stored on a dry surface and protected from direct sunlight, moisture, frost and snow, mechanical damage, dirt and flame. Contact with incompatible materials/chemicals should be avoided.

Packaging

Packed in 170 l or 420 l bags.

Waste management



The conditions of entry 78 in Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council apply to the supplied synthetic polymer micro-particles. The product is hazardous to the environment, so prevent losses. Do not release it directly into drains, air, soil, or water environments. Waste film falls under waste plastic packaging (15 01 02). Methods of disposal must comply with all relevant national, regional, municipal, and local regulations.

Certificates

The quality and environmental management system is in accordance with SIST EN ISO 9001 and SIST EN ISO 14001.