Product Data Sheet

FLAME RETARDANT EXPANDABLE POLYSTYRENE EPS 50

Description and usage

Fireproof thermal insulation panels ARCO EPS 50 are made by expanding and compressing the granules of polystyrene flame retardant under controlled conditions of pressure and temperature. It is recommended to be used in thermo facade, thermal and sound insulation for civil and industrial construction of new and old buildings under the process of interior rehabilitation: interior walls, false ceiling, attics etc.

Fireproof expanded polystyrene boards can be applied on concrete, brick, lime-cement plaster, porous concrete, OSB or wood.

Technical characteristics, identification code and marking

According to **SR EN 13163:2015,**
marking label is as follows: **L2-W1-T1-S$_b$1-P3-CS(10)50-BS75-DS(70.90)1-DS(N)2-WL(T)5-TR50**

TECHNICAL DATA	Unit	Value	Method of determination
Name EPS	ARCO EPS 50		
Thermal conductivity standard value	W/mK	0,042	EN 12667
Thermal conductivity calculation value	W/mK	0,045	EN 12667
Tensile strength	kPa	≥50	EN 1607
Bending strength	kPa	≥75	EN 12089
Water absorption trough total immersion	%	≤5%	EN 12087
Dimensional stability in specified temperature and moisture condition	%	1%	EN 1604
Dimensional stability in laboratory condition	%	≤2%	EN 1603
Thickness	mm	± 1mm	EN 823
Length	mm	± 2mm	EN 822
Width	mm	± 1mm	EN 822
Flatness	mm	± 3mm	EN 825
Perpendicularity	mm	± 1mm/1000 mm	EN 824
Compression strength at 10% deformation (stand.)	KPa	50	EN 826
Reaction to fire classification	B – s3, d0		
Flammability	Euroclass E		

Identification code:

short term for expanded polystyrene	**EPS**
▪ European standard	**EN 13163**
▪ thickness tolerance (± 1 mm)	**T$_1$**
▪ length tolerance (± 2 mm)	**L$_2$**
▪ width tolerance (±1mm)	**W$_1$**
▪ squareness tolerance (±1 mm/1000mm)	**S$_b$1**
▪ flatness tolerance (±3mm)	**P$_3$**

Benefits

- ❖ light weight, easily manufactured and handled;
- ❖ good thermal insulation which reduces annual energy demand;
- ❖ good ration thermal resistance vs. cost;
- ❖ good capacity for diffusion: does not allow the water to pass through, but allows passage of water vapors, leaving the wall to breathe;
- ❖ long life, does not decompose under the influence of microorganisms;
- ❖ no food source for pests.

Packing and cutting

Standard polystyrene boards measure in size **500 x 1000 mm**, and have a thickness ranging from **20-200 mm**.
At request, boards can be manufactured in other sizes.

Thickness	m²/bax	m³/bax	no. of boards	Thickness	m²/bax	m³/bax	no. of boards
20 mm	10	0.2	20	80 mm	3	0.24	6
30 mm	8	0.24	16	100 mm	2.5	0.25	5
40 mm	6	0.24	12	120 mm	2	0.24	4
50 mm	5	0.25	10	150 mm	1.5	0.225	3
60 mm	4	0.24	8	200 mm	1	0.2	2

Application

The application of expanded polystyrene is done according to regulations approved by the rules of good practice specific to expanded polystyrene thermal insulation.

Transport and storage

- ❖ store in vented, dry and free from moisture spaces;

- ❖ polystyrene packets must be protected against: direct sunlight (UV), sources of heat and fire, materials that can cause damages (thinners, fuels, paints, hard or sharp materials);

- ❖ when transport and storage ARCO polystyrene boards, avoid stacking on the edge of the product;

- ❖ during transport, handling and storage, it is forbidden to smoke or work with open fire;

Health safety and environment

- ❖ recyclable product, do not emit fluorides / chlorides;

- ❖ waste reprocessed results are full;

- ❖ not impact on health;

- ❖ odorless, not irritating for skin

Warranty

The average lifespan for expanded polystyrene applied in situ, is 25 years under the conditions of proper transport and storage, the provisions of the thermal Pot and correct operation.

In order to identify the material in the event of hidden defects of manufacture, to record any complaints, please save and attach the compliance statement datasheet product purchase documents, labeling and packaging.

Certification

- ❖ ARCO fireproof expanded polystyrene boards meet the requirements of **SR EN 13163:2015;**

- ❖ **AEROQ** certification to satisfy the **SR EN 13163** and **(UE) Regulation nr. 305/2011**;

- ❖ **SRAC** certification for Quality Management System according to **ISO 9001;**