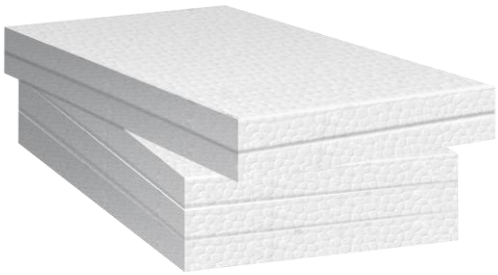
CLIMAPLUS

ULTRAPOR EPS

Polystyrene thermal insulation plates

ULTRAPOR EPS is a high-quality, white, expanded polystyrene foam insulation. It is free of voids and cavities. With high R values, it provides lower energy costs. It can be applied on different substitutes. It is available in panels. EPS is a light weight material. It can easily be stored and handled. It is installed on the job site and can be cut with ordinary tools, in order to ensure tight joints. EPS has easy application in exterior masonry as thermal insulation.



Advantages:

- Wide range of sizes.
- Various densities.
- Quick and easy in installation.
- Simple to handle.
- Not harmful and skin irritating.
- Excellent bond with various substitutes.
- Low thermal conductivity.
- Light weight.
- Economic system.
- Material with long life.

EN 998

CE

EPD

INTERNATIONAL EPD SYSTEM

TECHNICAL CHARACTERISTICS

Packaging:

6-30 item packages depending on the thickness

Application:

Suitable for thermal insulation in external masonries

Shades:

Available in white.

Storage:

Keep in a dry, humidity-free place away from the sun. Avoid application under solar radiation. Place a mesh or a net on scaffolds in order to create a shady place.

Technical characteristics		Units	Standard	Symbol	Value				
					EPS 60	EPS 80	EPS 100	EPS 150	EPS 200
Fire resistance		(Kg/m^3)	EN 13163	EN 13501-1 Euroclass	E				
Thermal conductivity		(W/mK)		EN 12667 λ	0.037	0.036	0.035	0.034	0.033
Dimension tolerance	Length	(mm)		EN 822 L2	±2				
	Width	(mm)		EN 822 W2	±2				
	Thickness	(mm)		EN 823 T2	±1				
	Squareness on length and width	(mm/m)		EN 824 S2	±2				
	Flatness	(mm)		EN 825 P5	±5				
Water absorption by partial immersion		(kg/m^2)		EN 12088 WL(P)	0.2				
Resistance to vapour diffusion		(1)		EN 12086 μ	20 to 40	20 to 40	30 to 70	30 to 70	30 to 70
Vapor permeability		(mg/(Pa h m))		EN 12086 δ	0.015 to 0.030	0.015 to 0.030	0.009 to 0.02	0.009 to 0.020	0.009 to 0.020
Shear strength		(N/mm^2)	ETAG 004	EN 12090 f_{tk}	≥0.02				
Shear factor		(N/mm^2)		EN 12090 G_m	≥1				
Dimensional stability	Condition: 23^{0}C, 50% R.H.	(%)	EN 13163	EN 1603 DS (N)2	Length, $\Delta\varepsilon_l$, and width, $\Delta\varepsilon_b$, %: ± 2				
	Condition: 48 h, 70^{0}C, 90% R.H.	(%)		EN 1604 DS (70, 90)1	Length, $\Delta\varepsilon_l$, and width, $\Delta\varepsilon_b$, %: 1 Thickness $\Delta\varepsilon_d$: 1%				
Compressive stress at 10% deformation		(kPa)		EN 826 CS(10)	≥ 60 kPa	≥80	≥100	≥150	≥200
Resistance to aging / degradation	Fire resistance				No change				
	Thermal conductivity								
Bending strength		(kPa)		EN 12089 BS	≥ 100 kPa	≥125	≥150	≥200	≥250
Tensile strength		(kPa)		EN 1607 TR	≥ 100 kPa	≥150	≥150	≥200	≥250

Product description	Dimensions	Thickness	Package			Thermal conductivity	Thermal resistance
	mm	mm	Sheets/package	m^2/package	m^3/package	λ_d (W/mK)	R_D (m^2K/W)
EPS 60	1000*500	30	20	10	0.3	0.037	0.8
		40	15	7.5	0.3		1.1
		50	12	6	0.3		1.4
		60	10	5	0.3		1.6
		70	9	4.5	0.32		1.9
		80	8	4	0.32		2.2
		90	7	3.5	0.32		2.4
		100	6	3	0.3		2.7
EPS 80	1000*500	30	20	10	0.3	0.036	0.8
		40	15	7.5	0.3		1.1
		50	12	6	0.3		1.4
		60	10	5	0.3		1.7
		70	9	4.5	0.32		1.9
		80	8	4	0.32		2.2
		90	7	3.5	0.32		2.5
		100	6	3	0.3		2.8
		120	5	2.5	0.30		3.3
		150	4	2	0.3		4.2
EPS 100	1000*500	30	20	10	0.3	0.035	0.9
		40	15	7.5	0.3		1.1
		50	12	6	0.3		1.4
		60	10	5	0.3		1.7
		70	9	4.5	0.32		2.0
		80	8	4	0.32		2.3
		90	7	3.5	0.32		2.6
		100	6	3	0.3		2.9
		120	5	2.5	0.30		3.4
EPS 150	1000*500	30	20	10	0.3	0.034	0.9
		40	15	7.5	0.3		1.2
		50	12	6	0.3		1.5
		60	10	5	0.3		1.8
		70	9	4.5	0.32		2.1
		80	8	4	0.32		2.4
		90	7	3.5	0.32		2.6
		100	6	3	0.3		2.9
		120	5	2.5	0.30		3.5
EPS 200	1000*500	30	20	10.00	0.30	0.033	0.9
		40	15	7.50	0.30		1.3
		50	12	6.00	0.30		1.6
		60	10	5.00	0.30		1.9
		70	9	4.50	0.32		2.3
		80	8	4.00	0.32		2.6
		90	7	3.50	0.32		2.9
		100	6	3.00	0.30		3.2
		120	5	2.50	0.30		3.6

*Note: The measurements were taken in laboratory environment under normal temperature and relative humidity conditions (+23^{0}C, 50%). It is possible for them to vary depending on the conditions prevailing at the worksite (temperature, humidity, absorbability of the substrate).

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