

# STYRO EXPANDED POLYSTYRENE (EPS)



Expanded Polystyrene (EPS) is a generic term for polystyrene and styrene copolymers. It is a rigid cellular plastic foam material derived from petroleum and natural gas byproducts.

EPS is one of the lightest of all construction materials allowing ease of handling and faster construction times. Its outstanding thermal insulation properties and durability ensure performance throughout the full lifetime of the building/construction application in which it is used.



# STYRO Expanded Polystyrene (EPS)

## Technical and Physical Properties

Standards	ASTM C 578	TYPE XI	TYPE I	TYPE VIII	TYPE II	TYPE IX	TYPE XIV	TYPE XV	
	BS 3837	LD	SD	HD	EHD	UHD	SHD	XD	
	Product	STYRO 150	STYRO 180	STYRO 220	STYRO 290	STYRO 380	STYRO 460	STYRO 500	
Physical Properties	Density	12-15	15-18	18-22	22-29	29-38	38-46	46-50	
	( Kg / m <sup>3</sup> )								
	Compressive Resistance	35	70	105	134	257	363	451	
	( @10 % deformation, kPa )								
	Thermal Resistance R-Value	0.60	0.64	0.67	0.71	0.72	0.73	0.74	
	( of 25.4 mm thickness @ mean temperature of 24 ± 1 °C min,K.m <sup>2</sup> /W )								
	Thermal Conductivity K-Value	0.0422	0.0395	0.0377	0.0354	0.0353	0.0348	0.0341	
	( max, W/m.K @ 35 °C and 60 % RH )								
	Flexural Strength	70	184	210	250	382	461	538	
	( min, kPa )								
	Water Vapor Permeance	3.5	3.3	3.2	3.1	2.7	2.5	2.2	
	( of 25.4 mm thickness, max, perm )								
	Water Absorption	2.0	1.8	1.6	1.3	1.1	0.9	0.7	
	( total immersion, max, volume % )								
	Dimensional Stability	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
( change in dimensions, max % )									
Oxygen Index	24	24	24	24	24	24	24		
( min, volume % )									
Flame Spread Index	5	5	5	5	5	5	5		
( max, as per surface burning characteristics ASTM E84-UI 723 )									
Smoke Developed	5	5	5	5	5	5	5		
( max, as per surface burning characteristics ASTM E84-UI 723 )									

