

Physical Properties

EXPANDED POLYSTYRENE TECHNICAL DATA SHEET								
STANDARDS	ASTM C 578	TYPE XI	TYPE I	TYPE VIII	TYPE II	TYPE IX	TYPE XIV	TYPE XV
	BS3837	LD	SD	HD	EHD	UHD	SHD	XD
PHYSICAL PROPERTIES	DENSITY	12	15	18	22	29	38	46
	(min, kg/m ³)							
	COMPRESSIVE RESISTANCE	35	69	90	104	173	276	414
	(@ YIELD OR 10% DEFORMATION, WHICH OCCURS FIRST, MIN KPA)							
	THERMAL RESISTANCE R-VALUE	0.55	0.63	0.67	0.7	0.74	0.74	0.76
	(OF 25.4 MM THICKNESS @ MEAN TEMPERATURE OF 24 ± 1 °C MIN, K.M ² /W)							
	THERMAL CONDUCTIVITY K-VALUE	0.0482	0.0419	0.0394	0.0377	0.0356	0.0356	0.0347
	(MAX, W/M.K@ 35 °C AND 60% RH)							
	FLEXURAL STRENGTH	70	173	208	240	345	414	517
	(MIN, KPA)							
	WATER VAPOR PERMEANCE	5.0	5.0	3.5	3.5	2.5	2.5	2.5
	(OF 25.4 MM THICKNESS, MAX, PERM)							
	WATER ABSORPTION	4.0	4.0	3.0	3.0	2.0	2.0	2.0
	(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	25	25	25	25	25	25	25	
MAX, AS PER SURFACE BURNING CHARACTERISTICS ASTM E84)								