

Physical Properties of STYRO-FLEX EPS GEOFOAM

STYRO-FLEX EPS Geofoam is a cellular plastic material that is strong, but has very low density (1% of traditional earth materials). It is manufactured in block form and meets ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam." EPS Geofoam is available in a range of densities to provide control of structural integrity and cost effectiveness.

Property ¹		ASTM D6817						
		EPS12	EPS15	EPS19	EPS22	EPS29	EPS39	EPS46
Density, minimum	pcf	0.70	0.90	1.15	1.35	1.80	2.40	2.85
	kg/m ³	11.2	14.4	18.4	21.6	28.8	38.4	45.7
Compressive Resistance @ 1% deformation, minimum	psi	2.2	3.6	5.8	7.3	10.9	15	18.6
	psf	320	520	840	1050	1570	2160	2680
	kPa	15	25	40	50	75	103	128
Compressive Resistance @ 5% deformation, minimum	psi	5.1	8.0	13.1	16.7	24.7	35.0	43.5
	psf	730	1150	1890	2400	3560	5040	6260
	kPa	35	55	90	115	170	241	300
Compressive Resistance @ 10% deformation, minimum	psi	5.8	10.2	16.0	19.6	29.0	40.0	50.0
	psf	840	1470	2300	2820	4180	5760	7200
	kPa	40	70	110	135	200	276	345
Elastic Modulus, minimum	psi	220	360	580	730	1090	1500	1860
	kPa	1500	2500	4000	5000	7500	10300	12800
Flexural Strength, minimum	psi	10.0	25.0	30.0	40.0	50.0	60.0	75.0
	kPa	69	172	207	276	345	414	517
Water Absorption by total immersion, maximum	volume %	4.0	4.0	3.0	3.0	2.0	2.0	2.0
Oxygen Index, minimum	volume %	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Buoyancy Force	pcf	61.7	61.5	61.3	61.1	60.6	60.0	59.5
	kg/m ³	990	980	980	980	970	960	950

The information given is deemed to be timely, accurate and reliable for the use of EPS Geofoam. Each project using EPS Geofoam should be designed by a professional engineer. The engineer of project specifications should be consulted to determine the ASTM D6817 Type required for your project loading conditions.

¹ See ASTM D6817 Standard for test methods and complete information.



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