



EPS Foam is a cellular plastic material that is extremely lightweight (1lb/ft³), extremely strong, and has a very low density (1% of traditional earth materials.)

It is a manufactured block material meeting the engineered product specification standards of ASTM D6817/ ASTM C-578 Standard densities range from 11 kg/m³ (0.7 lb/ft³) to 32 kg/m³ (1.8 lb/ft³).

Material used for structural fill material in stadium seating applications is Type I, 0.9 lb./ft.³. This density range for the different EPS allows for the specification of a material with suitable mechanical properties as required by the project.

EPS Properties							
Property		Type XI	Type I	Type VIII	Type II	Type IX	
Nominal Density	lb/ft ³ (kg/m ³)	0.75 (12)	1.00 (16)	1.25 (20)	1.50 (24)	2.00 (32)	
Density ¹ , min.	lb/ft ³ (kg/m ³)	0.70 (12)	0.90 (15)	1.15 (18)	1.35 (22)	1.80 (29)	
Design Thermal Resistance per 1.0 in. thickness	75°F	°F•ft ² •h/Btu (°K•m ² /W)	3.22 (0.57)	3.85 (0.68)	3.92 (0.69)	4.17 (0.73)	4.35 (0.77)
	40°F	°F•ft ² •h/Btu (°K•m ² /W)	3.43 (0.60)	4.17 (0.73)	4.25 (0.75)	4.55 (0.80)	4.76 (0.84)
Thermal Resistance ¹ , min per 1.0 in. thickness	75°F	°F•ft ² •h/Btu (°K•m ² /W)	3.10 (0.55)	3.60 (0.63)	3.80 (0.67)	4.00 (0.70)	4.20 (0.74)
	40°F	°F•ft ² •h/Btu (°K•m ² /W)	3.30 (0.58)	4.00 (0.70)	4.20 (0.74)	4.40 (0.77)	4.60 (0.81)
Compressive strength ¹ @10% def., min.	psi (kPa)	5.0 (35)	10.0 (69)	13.0 (90)	15.0 (104)	25.0 (173)	
Flexural strength ¹ , min.	psi (kPa)	10.0 (69)	25.0 (173)	30.0 (208)	40.0 (276)	50.0 (345)	
Water Vapor Permeance ¹ of 1.0 in. thickness, max., perm		5.0	5.0	3.5	3.5	2.0	
Water Absorption ¹ by total immersion, max., volume %		4.0	4.0	3.0	3.0	2.0	
Oxygen Index ¹ min., volume %		24.0	24.0	24.0	24.0	24.0	
Flame Spread ²		20	20	20	20	20	
Smoke Developed ²		150-300	150-300	150-300	150-300	150-300	
¹ See ASTM C-578 Standard Specification for complete information							