



### SSE uses Type I EPS Foam for Stadium Seating Systems

TYPE—ASTM D6817 (ASTM C578-04 cross reference)	EPS12 (Type XI)	EPS15 (Type I)	EPS19 (Type VIII)	EPS22 (Type II)	EPS29 (Type IX)
Density, min., kg/m <sup>3</sup> (lb/ft <sup>3</sup> )	11.2 (0.70)	14.4 (0.90)	18.4 (1.15)	21.6 (1.35)	28.8 (1.80)
Compressive Resistance @ 1% deformation, Min., kPa (psi)	15 (2.2)	25 (3.6)	40 (5.8)	50 (7.3)	75 (10.9)
Flexural Strength min., kPa (psi)	69 (10.0)	172 (25.0)	207 (30.0)	276 (40.0)	345 (50.0)
Water Absorption by total immersion, Max., volume %	4.0	4.0	3.0	3.0	2.0
Oxygen Index, min., volume %	24.0	24.0	24.0	24.0	24.0
Buoyancy Force, (kg/m <sup>3</sup> ) (lb.ft <sup>3</sup> )	952 (59.4)	955 (8.0)	90 (13.1)	115 (16.7)	969 (24.7)

### Additional Properties for Compressible Applications

Compressive Resistance @ 5% deformation, min., kPa (psi)	35 (5.1)	55 (8.0)	90 (13.1)	115 (16.7)	170 (24.7)
Compressive Resistance @ 10% deformation, min., kPa (psi)	40 (5.8)	70 (10.2)	110 (16.0)	135 (19.6)	200 (29.0)

#### Technical Notes:

For most applications, long term design loads should not exceed the linear elastic range of the EPS Foam. Combined live and dead load stresses should not exceed 1% strain.

EPS Foam is a cellular plastic material that is extremely lightweight (1lb/ft<sup>3</sup>) 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. Standard densities range from 11 kg/m<sup>3</sup> ((0.7 lb/ft<sup>3</sup>) to 32 kg/m<sup>3</sup> (2lb/ft<sup>3</sup>). This density range allows for the specification of a material with suitable mechanical properties as required by the project.