

CiS Polystyrene & Foam

Est. 1986

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Technical Data Sheet for Expanded Polystyrene

Technical Aspect	EPS 70 (SD)	EPS 100 (HD)	EPS150 (EHD)	EPS 200 (UHD)
Compressive Stress @ 10% kPa (min)	70	100	150	200
Cross Bending Strength kPa (min)	115	150	200	250
Compressive Stress @ 1% kPa	21	45	70	100
Thermal Conductivity W/mK (max)	0.038	0.036	0.035	0.034
Dimensional Stability % (max)	1	1	1	1
Operating Temperature °C	80	80	80	80
Vapour Transmission ngm/Ns (max)	6.9	5	4.2	4.2
Vapour resistivity Mns/gm (min)	145	200	238	238
Nominal Density Kg/m ³	15	20	23	30

Expanded polystyrene (EPS) is moisture resistant, compatible with most building products except materials containing solvents. EPS is rot proof, unaffected by bacteria, moulds or fungi. It is non-toxic, non-irritant and odourless. EPS does not contain CFC or HCFC but is combustible when tested to BS476:PART4 and will ignite with a flame. The material should be stored under cover protected from direct sunlight and out of contact with moisture.

A flame retardant additive polymated cycloaliphitic halogenated hydrocarbon can be added to polystyrene which will inhibit the early stages of fire. The products of combustion are carbon monoxide, carbon dioxide, styrene, water and dense black soot. The FRA version also emits hydrogen bromide, which the beads are coated with. The FRA version will extinguish once a flame is removed. Flash ignition is between 350°C and 490°C.