

## Water Absorption data...General Information

Data extracted from Physical properties on the BASF ( manufacturers of raw styrene bead ) data base>

### Effects of Moisture

Although expanded Polystyrene may absorb minute proportions of water if immersed for prolong periods it is not hygroscopic.

Any water that is absorbed has no effects on the mechanical properties which are also unaffected by atmospheric humidity..

Expanded Polystyrene is somewhat permeable to water vapour. Net flow is from the side with the higher partial pressure of water( often the warmer side ) to that with the lower partial pressure. The resistance of Expanded Polystyrene to the passage of water vapour may be derived from the value of the relative vapour resistivity, which is the resistivity of the material relative to that of still air at the same temperature. The relative resistivity of expanded Polystyrene varies with density as given below.

Test Standard	Emersion Time	Density kg/m3	Result
Din 53 434	7 days	25	0.5 - 1.5
" "	28 days	25	1.0 - 3.0
" "	7 days	20	0.5 - 1.5
" "	28 days	20	1.0 - 3.0

Hope the information helps