

**Expanded Polystyrene**

Property	Test Method	Unit	TK 15	TK 20	TK 25	TK 30	TK 35
Minimum Apparent Density	DIN 53420	KG M/3	14-16	20-22	24-26	30-32	32-35
Max. Permissible Compressive Stress at <2% Compression	DIN 53421	KPA	12-25	22-35	28-50	36-62	44-74
Compressive Stress at 10% Compression (1)	DIN 53421	KPA	65-110	100-160	140-210	180-255	225-305
Flexural Strength (1)	DIN 53423	KPA	160-210	240-300	325-400	410-490	490-590
Tensile Strength (1)	DIN 18164	KPA	150-230	225-325	260-415	375-510	450-600
Shear Strength (1)	DIN 53427	KPA	90-120	120-150	150-190	190-220	220-250
Average Coefficient Of Linear Expansion Between 20° and 80°C		K-1	06 X 10-4	06 X 10-4	06 X 10-4	06 X 10-4	06 X 10-4
Dimensional Stability Under Heat. Short Term	DIN 53752 Based on DIN 53424 Based on DIN 18164	°C	95	95	95	95	95
Dimensional Stability (2) Under Heat. Long Term							
Under 05 KPA Load		°C	85	85	85	135	85
Under 20 KPA Load		°C	75-80	80-85	80-85	80-85	80-85
Continuous Service Temperature In Air (3)		°C	180-+95	-180-+95	-180-+95	180-+95	180-+95
Thermal Conductivity With Average Specimen Temp 10°C	DIN 52612	WN-1K-1	0.032 - 0.036	0.031-0.035	0.031-0.035	0.029-0.033	0.029-0.033
Approximate Water Vapour Permeability	DIN 53429	GD - 1M-2**	40	35	26	20	16
Water Vapour Diffusion Resistance Factor (4)	DIN 4108		20-50	30-70	40-100	40-100	40-100
Water Absorption When Kept Under water after 7 days	DIN 53434	VOL %	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5
Flammability	DIN 4102	MATERIAL CLASS	B1 Flame Resistance	B1 Flame Resistance	B1 Flame Resistance	B1 Flame Resistance	B1 Flame Resistance