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Expanded Polystyrene Technical Information

Property		Units	ASTM Test					
Density		PCF	D1622	0.75	1.0	1.25	1.5	2.0
Thermal Conductivity (K Factor)	@ 40F @ 75F	BTU/hr. (Sq. Ft.)(F/in.)	C518	0.28 0.30	0.24 0.26	0.235 0.255	0.22 0.24	0.21 0.23
Thermal Resistance (R Value)*	@ 40F @ 75F	@ 1” Thickness	-	3.6 3.3	4.17 3.85	4.25 3.92	4.55 4.17	4.76 4.35
Strength Properties								
Compressive 10% Deformation		PSI	D1621	5-9	10-14	13-18	15-21	25-33
Flexural		PSI	C203	10-18	25-30	32-38	40-50	56-75
Tensile		PSI	D1623	14-18	16-20	17-21	18-22	23-27
Shear		PSI	D732	11-13	18-22	23-25	26-32	33-37
Shear Modulus		PSI		190-230	280-320	370-410	460-500	600-640
Modulus of Elasticity		PSI		110-150	180-220	250-310	320-360	460-500
Moisture Resistance								
WVT		Perm. In.	C355	1.9-3.9	1.2-3.0	1.1-2.8	0.9-2.5	0.6-1.5
Absorption (Vol.)		%	C272	<4.0	less than	less than	less than	less than
Capillarity		-	-	none	none	none	none	none
Coefficient of Thermal Expansion		In. / (in.)(F)	D696	0.000035	0.000035	0.000035	0.000035	0.000035
Maximum Service Temperature								
Long – Term		F	-	167	167	167	167	167
Intermittent				180	180	180	180	180
Oxygen Index		%	D2863	30.4	30.4	30.4	30.4	30.4
Dimensional Stability		% Change	D2126 (Proc.C&E)	Max. 2.0	Max. 2.0	Max. 2.0	Max. 2.0	Max. 2.0

for more information
www.foamsupply.com