

ZAGROS

CONSTRUCTION

TWO CORPORATE DRIVE, SUITE 234
SHELTON, CONNECTICUT USA 06484

Figure 1. Expandable Polystyrene Summary

Property	Units	ASTM Test	Density (pcf)			
			1.0	1.25	1.5	2.0
Thermal Resistance (R value) @75°F	per inch		3.92	4.10	4.13	4.13
Thermal Conductivity (k Value) @75°F	Btu in./hr-ft-°F		.255	.244	.242	.235
Thermal Resistivity (R value) @40°F	per inch		4.17	4.25	4.55	4.75
Thermal Conductivity (k value) @40°F	Btu in./hr-ft-°F		.240	.235	.220	.210
Compressive Strength at 10% Deformation	psi	D1621	9-13	14-19	19-24	31-36
Flexural Strength	psi	C203	21-39	30-49	39-59	57-79
Water Vapor Transmission	perm inch	C355	0.8-2.8	0.8-2.6	0.8-2.5	0.6-2.4
Water Absorption (volume)**	%	C272*	0.9-1.9	0.8-1.8	0.8-1.6	0.7-1.5
Maximum Service Temperature	°F		175	175	175	175
Coefficient of Linear Expansion	in/in/°F	D696	3.5x10 ⁻⁵	3.5x10 ⁻⁵	3.5x10 ⁻⁵	3.5x10 ⁻⁵