

Product Data Sheet

PROPERTY	UNITS	DENSITY (lbs./ft. ³)				ASTM TEST
		1.0	1.25	1.5	2.0	
Resistance (R value)	1/K					
@ 40 °F		4.17	4.25	4.55	4.76	C-177
@ 75 °F		3.85	3.92	4.17	4.35	or C-518
Thermal Conductivity (K factor)	BTU/sq. ft. hr.°F/inch					
@ 40 °F		0.240	0.235	0.220	0.210	C-177
@ 75 °F		0.260	0.255	0.240	0.230	or C-518
Coefficient of Linear Expansion	in./in./ °F	3.5 x 10 ⁻⁵	3.5 x 10 ⁻⁵	3.5 x 10 ⁻⁵	3.5 x 10 ⁻⁵	D-696
Recommended Max. Service Temp.	°F					
Continuous exposure		165	165	165	165	--
Intermittent exposure		180	180	180	180	--
Flash and Self Ignition Temperature	°F	675	675	675	675	D-1929
Water Absorption (Volume)	%	<2.5	<2.5	<2.0	<1.0	C-272
Water Vapor Transmission	perm inch	1.2 - 3.0	1.1 - 2.8	.09 - 2.5	.06 - 1.5	C-355
Strength:						
Compressive (10% deformation)	psi	10-14	13-18	15-21	25-33	D-1621
Flexural	psi	25-30	32-38	40-50	55-75	C-203
Tensile	psi	16-20	17-21	18-22	23-27	D-1623
Shear	psi	18-22	23-25	26-32	33-37	D-732
Shear Modulus	psi	280-320	370-410	460-500	600-640	--
Modulus of Elasticity	psi	180-220	260-310	320-360	460-500	--
Oxygen Index (Minimum)		24	24	24	24	D-2863
BTU Content	BTU/lb.	16,655	16,655	16,655	16,655	D-2015
Flame Spread		<25	<25	<25	<25	E-84
Smoke Developed		<450	<450	<450	<450	E-84

Roylite EPS Insulation Boards Manufactured to these standards meet or exceed the requirements of ASTM C 578, RADCO Listing No. 1143 and ESR Report No. 2274