



UNIVERSAL FOAM PRODUCTS

PHYSICAL PROPERTIES OF EXPANDED POLYSTYRENE			ASTM C578						
Property			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV
Nominal Density	lb/ft ³	0.75	1.00	1.25	1.5	2.00	2.50	3.00	
	(kg/m ³)	(12)	(16)	(20)	(24)	(32)	(40)	(48)	
Minimum Density	lb/ft ³	0.70	.90	1.15	1.35	1.8	2.40	3.00	
	(kg/m ³)	(12)	(15)	(18)	(22)	(29)	(38)	(48)	
Thermal Resistance R-Value per inch	ASTM C518	25°F	3.50	4.35	4.55	4.76	5.00	5.05	5.10
		40°F	3.30	4.17	4.25	4.55	4.76	4.85	5.05
		75°F	3.10	3.85	3.92	4.17	4.35	4.50	4.60
Compressive Strength @ 10% deformation, min.	ASTM D1621	psi	5.0	10.0	13.0	15.0	25.0	40.0	60.0
		(kPa)	(35)	(69)	(90)	(104)	(173)	(276)	(414)
Flexural Strength, min.	ASTM C203	psi	10.0	25.0	30.0	35.0	50.0	60.0	75.0
		(kPa)	(69)	(173)	(208)	(242)	(345)	(414)	(517)
Water Vapor Permeance (max. perm., 1")	ASTM E96		5.0	5.0	3.5	3.5	2.5	2.5	2.5
Water Absorption (max. % vol.)	ASTM C272		4.0	4.0	3.0	3.0	2.0	2.0	2.0
Capillarity			none	none	none	none	none	none	none
Flame Spread	ASTM E84		< 25	< 25	< 25	< 25	< 25	< 25	< 25
Smoke Developed	ASTM E84		< 450	< 450	< 450	< 450	< 450	< 450	< 450
Max. Service Temperature	Long Term	°F	167	167	167	167	167	167	167
	Intermittent	°F	180	180	180	180	180	180	180

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