

ASTM C578

Specification for Rigid, Cellular Polystyrene Thermal Insulation

			Density (pcf)						
Classification			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	Type XV
Nominal Density			0.75	1.00	1.25	1.50	2.00	2.50	3.00
Density, min. lb/ft ³			0.75	0.90	1.15	1.35	1.80	2.40	2.85
Property	Units	ASTM Test							
Thermal Resistance R Values (at 75° F)	per inch thickness	--	3.1	3.6	3.8	4.0	4.2	4.2	4.3
Strength Properties Compressive (10% def)	psi	D1621	5	10	13	15	25	40	60
Flexural	psi	C203	10	25	30	35	50	60	75
Moisture Resistance Absorbtion (vol.)	%	C272	4.0	4.0	3.0	3.0	2.0	2.0	2.0
Capillarity	--	--	none	none	none	none	none	none	none
Coefficient of Thermal Expansion	In./.(in.) (F)	D696	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035
Maximum Service Temperature Long Term Intermittent	°F	--	167 180	167 180	167 180	167 180	167 180	167 180	167 180
Oxygen Index	%	D2863	24	24	24	24	24	24	24
Dimensional Stability	% Change	C303	Max 2.0	Max 2.0	Max 2.0	Max 2.0	Max 2.0	Max 2.0	Max 2.0

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