

Values Meet or Exceed ASTM-C578 Standards			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	
Property:	Units	ASTM							
Density, Min.	(pcf)	C303 or D1622		0.70	0.90	1.15	1.35	1.80	2.40
Thermal Conductivity "K Factor"	BTU/(hr) (sqft)(°F/in)	C277 or C518	@25 °F	0.290	0.238	.0227	0.217	0.208	0.208
			@40 °F	0.303	0.250	0.238	0.227	0.217	0.217
			@75 °F	0.322	0.277	0.263	0.250	0.238	0.238
Thermal Resistance "R Value"	One inch thickness	C177 or C518	@25 °F	3.45	4.35	4.54	4.76	5.00	5.00
			@40 °F	3.30	4.17	4.25	4.55	4.76	4.76
			@75 °F	3.10	3.85	3.92	4.17	4.35	4.50
Strength Properties			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	
Property:	Units	ASTM							
Compressive @ 10% deformation	psi	--		5.0	10.0	13.0	15.0	25.0	40.0
Flexural	psi	C203		10	25	30	35	50	60
Tensile	psi	D1623			16	17	18	23	
Shear	psi	D732			18	23	26	33	
Shear Modulus	psi	--			280	370	460	600	
Moisture Resistance			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	
Property:	Units	ASTM							
Water Vapor Permeance, max. perm.	Perms (ng/Pa·s·m ²)	E 96		5.0	5.0 (287)	3.5 (201)	3.5 (201)	2.5 (115)	2.5
Absorption by Volume, max.	%	C272		< 4.0	< 4.0	< 3.0	< 2.0	< 2.0	< 2.0
Capillarity	--	--		None	None	None	None	None	None
Buoyancy	lbs/ft ³	.		60	60	60	60	60	60
Other Properties			Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	
Property:	Units	ASTM							
Coeff. Of Thermal Expansion	In./.(in) (°F)	D696		0.000035	0.000035	0.000035	0.000035	0.000035	0.000035
Max. Service Temperature	°F	--	Long-term		180	167	167	167	
			Intermit- tent	180	180	180	180	180	180
Flame Spread at 6"		UL® (BRYX)		20	20	20	20	20	20
Smoke Development		UL® (BRYX)		300	300	300	300	300	300