

EPS Properties

ASTM C578

PROPERTY		TYPE XI	TYPE I	TYPE VIII	TYPE II	TYPE IX	TYPE XIV	TYPE XV
Nominal Density	lb/ft ³ (kg/m ³)	0.75 (12)	1.00 (16)	1.25 (20)	1.50 (24)	2.00 (32)	2.50 (40)	3.00 (48)
Density ¹ , min.	lb/ft ³ (kg/m ³)	0.70 (12)	0.90 (15)	1.15 (18)	1.35 (22)	1.80 (29)	2.40 (38)	3.00 (48)
Design Thermal Resistance per 1.0 in. thickness	25°F °F·ft ² ·h/Btu (°K·m ² /W)	3.6 (0.63)	4.4 (0.77)	4.6 (0.80)	4.8 (0.84)	5.0 (0.88)	5.0 (0.89)	5.1 (0.90)
	40°F °F·ft ² ·h/Btu (°K·m ² /W)	3.4 (0.60)	4.2 (0.73)	4.3 (0.75)	4.6 (0.81)	4.8 (0.84)	4.8 (0.84)	4.9 (0.85)
	75°F °F·ft ² ·h/Btu (°K·m ² /W)	3.2 (0.57)	3.9 (0.68)	3.9 (0.69)	4.2 (0.73)	4.4 (0.77)	4.4 (0.77)	4.5 (0.78)
Thermal Resistance ¹ , min. per 1.0 in. thickness	25°F °F·ft ² ·h/Btu (°K·m ² /W)	3.5 (0.61)	4.2 (0.74)	4.4 (0.77)	4.6 (0.81)	4.8 (0.84)	4.8 (0.84)	4.9 (0.86)
	40°F °F·ft ² ·h/Btu (°K·m ² /W)	3.3 (0.58)	4.0 (0.70)	4.2 (0.74)	4.4 (0.77)	4.6 (0.81)	4.6 (0.81)	4.7 (0.83)
	75°F °F·ft ² ·h/Btu (°K·m ² /W)	3.1 (0.55)	3.6 (0.63)	3.8 (0.67)	4.0 (0.70)	4.2 (0.74)	4.2 (0.74)	4.3 (0.76)
Compressive Strength ¹ @ 10% deformation, min.	psi (kPa)	5.0 (35)	10.0 (69)	13.0 (90)	15.0 (104)	25.0 (173)	40.0 (276)	60.0 (414)
Flexural Strength ¹ , min.	psi (kPa)	10.0 (69)	25.0 (173)	30.0 (208)	35.0 (242)	50.0 (345)	60.0 (414)	75.0 (517)
Water Vapor Permeance ¹ of 1.0 in. thickness, max., perm		5.0	5.0	3.5	3.5	2.5	2.5	2.5
Water Absorption ¹ by total immersion, max., volume %		4.0	4.0	3.0	3.0	2.0	2.0	2.0
Oxygen Index ¹ min., volume %		24	24	24	24	24	24	24

EPS has a flame spread index of less than 25 and a smoke-developed index of less than 450 when tested in accordance with ASTM E84/UL 723 for densities from 0.7 - 3.0 lb/ft³. Please refer to UL certificate for complete information.

¹ See ASTM C578 Standard for test methods and complete information.