



EPS



Foam-Control EPS (expanded polystyrene) is an architectural grade closed cell, moisture resistant rigid foam used for all types of construction applications. Foam-Control EPS conforms to ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

Foam-Control EPS is manufactured under an industry leading quality control program monitored by UL and further recognized in ICC-ES Evaluation Report ER-10016 and UL Evaluation Report UL ER11812-01.

Product			FOAM CONTROL 50	FOAM CONTROL 100	FOAM CONTROL 130	FOAM CONTROL 150	FOAM CONTROL 250	FOAM CONTROL 400	FOAM CONTROL 600
Compressive Strength ^{1,2} @ 10% deformation, min. ASTM D1621		psi (kPa)	5 (35)	10 (69)	13 (90)	15 (104)	25 (173)	40 (276)	60 (414)
R-value ¹ , Thermal Resistance, per inch, ASTM C518	25°F	°F·ft ² ·h/Btu (°K·m ² /W)	3.6 (0.63)	4.4 (0.77)	4.5 (0.80)	4.8 (0.84)	5.0 (0.88)	5.0 (0.88)	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 (0.80)	4.8 (0.84)	4.8 (0.84)	4.9 (0.86)
	75°F	°F·ft ² ·h/Btu (°K·m ² /W)	3.2 (0.56)	3.9 (0.68)	3.9 (0.69)	4.2 (0.73)	4.4 (0.77)	4.4 (0.77)	4.5 (0.78)
Density, Nominal ASTM C303		lb/ft ³ (kg/m ³)	0.75 (12)	1.0 (16)	1.25 (20)	1.5 (24)	2.0 (32)	2.5 (40)	3.0 (48)
Flexural Strength ¹ , min. ASTM C203		psi (kPa)	10 (69)	25 (173)	30 (208)	35 (242)	50 (345)	60 (414)	75 (517)
Water Vapor Permeance ¹ of 1.0 in. thickness, max., perm ASTM E96			5.0	5.0	3.5	3.5	2.5	2.5	2.5
Water Absorption ¹ by total immersion, max., volume % ASTM C272			4.0	4.0	3.0	3.0	2.0	2.0	2.0
Flame Spread ASTM E84			<25	<25	<25	<25	<25	<25	<25
Smoke Developed ASTM E84			<450	<450	<450	<450	<450	<450	<450
ASTM C578 Compliance, Type			XI	I	VIII	II	IX	XIV	XV

¹ Please refer to ASTM C578 specification for complete information.

² Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

Thermal Performance.

The R-value of Foam-Control EPS remains constant and does not suffer from R-value loss. The closed cell structure of Foam-Control EPS contains air and not blowing agents which deplete over time.

Exposure to Water and Water Vapor.

The mechanical properties of EPS are unaffected by moisture. Exposure to water or water vapor does not cause swelling.

Temperature Exposure/Flame Retardants.

EPS is able to withstand the rigors of temperature cycling, assuring long-term performance.

Although flame retardants used in the manufacture of EPS provide an important margin of safety, all EPS products must be considered combustible.

The maximum recommended long-term exposure temperature for Foam-Control EPS is 165°F (74°C).

Weathering.

Long-term exposure to sunlight causes yellowing and a slight embrittlement of the surface due to ultraviolet light. This has little effect on mechanical properties. If stored outdoors, cover EPS with opaque polyethylene film, tarps, or similar material.

Resistance to Termites, Mold, and Mildew.

Foam plastic insulations have been shown to become termite infested under certain exposure conditions. Foam-Control EPS with Perform Guard® provides resistance to termite infestation. Please review literature on Foam-Control EPS with Perform Guard for complete information.



EPS will not decompose and will not support mold or mildew growth. EPS provides no nutrient value to plants or animals.

Adhesives, Coatings, and Chemicals.

Solvents which attack EPS include esters, ketones, ethers, aromatic, and aliphatic hydrocarbons and their emulsions, among others. If EPS is to be placed in contact with materials (or their vapors) of unknown composition, pretest for compatibility at maximum exposure temperature.

Do not install or use EPS with coal tar pitch, highly solvent-extended mastics, or solvent-based adhesives without adequate separation.

Warranty.

Foam-Control EPS Licensees offer a product warranty ensuring thermal performance, physical properties, and termite resistance.



Foam-Control EPS products are manufactured by AFM Corporation licensees.

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