

EPS (Expanded Polystyrene) Insulation is a moisture resistant closed cell foam which contains no ozone depleting CFCs, HCFCs or HFC blowing agents, dyes, or formaldehyde and is recyclable.

EPS offers outstanding flexibility in design and is ideal for most construction needs, offering the best insulating value per dollar spent of any material available today. Additionally, its long insulation value is assured since aging has absolutely no effect upon performance.

Technical Data

EPS Insulation meets or exceeds physical and thermal property standards as established in ASTM

Physical Properties	Units	ASTM Test	Type XI	Type I	Type VIII	Type II	Type IX	Type XIV	Type V
Compressive Resistance at 10% Strain Deformation (2" cube)	Min psi (kPa)	D 1621, C 165	5.0 (35)	10.0 (69)	13.0 (90)	15.0 (104)	25.0 (173)	40.0 (276)	60.0 (414)
Flexural Strength	Min psi (kPa)	C 203	10.0 (69)	25.0 (173)	30.0 (208)	35.0 (240)	60.0 (414)	60.0 (414)	75.0 (517)
Thermal Resistance (R-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	Min R* for 1" thickness	C 177, C518	3.22 (0.57) 3.43 (0.60)	3.85 (0.67) 4.17 (0.73)	3.92 (0.69) 4.25 (0.75)	4.17 (0.73) 4.55 (0.80)	4.35 (0.77) 4.76 (0.84)	4.35 (0.77) 4.76 (0.84)	4.44 (0.78) 4.85 (0.89)
Thermal Conductivity (K-Value)* 75 ± 2° F (24 ± 1° C) 40 ± 2° F (4.4 ± 1° C)	BTU/(hr)(Sg.Ft.)(F/in.)	C 177, C518	0.310 (1.76) 0.292 (1.67)	0.260 (1.48) 0.240 (1.37)	0.255 (1.46) 0.235 (1.35)	0.240 (1.37) 0.220 (1.26)	0.230 (1.31) 0.210 (1.20)	0.230 (1.31) 0.210 (1.20)	0.220 (1.26) 0.200 (1.14)
Coefficient of Thermal Expansion	In./(In.)(F)	D 696	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035	0.000035
Moisture Resistance Water Absorption by total immersion	% by volume Max	C 272	<4.0	<4.0	<3.0	<3.0	<2.0	<2.0	<2.0
Water Vapor Permeability of 1" (25.4 mm) thickness max perm	Max perm/in (ng/PA*s*m²)	E 96	5.0 (287)	5.0 (287)	3.5 (201)	3.5 (201)	2.5 (143)	2.5 (143)	2.5 (143)
Oxygen Index	Min Volume %	D 2863	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Dimensional Stability (Change in dimensions)	Max %	D 2126	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Max. Service Temperature Long Term / Intermittent	F		167 / 180	167 / 180	167 / 180	167 / 180	167 / 180	167 / 180	167 / 180
Density, minimum Density, nominal	Min lb/ft³ (kg/m³) lb/ft³	C 303	0.70 (12) 0.75	0.90 (15) 1.00	1.15 (18) 1.25	1.35 (22) 1.50	1.80 (29) 2.00	2.40 (38) 2.50	2.40 (38) 2.50

*R means resistance to heat flow. The higher the R-value, the greater the insulating power.

Federal Trade Commission requires using the R-Value publication at 75°F temperature when calculating R-Values of all insulations. Aged R-Values of alternative products should be compared to determine long-term benefit. Some types of insulation lose their R-Value over time.

FMI-EPS has a flame spread index of 20 and a smoke developed index of 150-300 when tested in accordance with ASTM E84/UL 723 for densities from 0.7 - 2.0 lb/ft³.

Insulation Consideration:

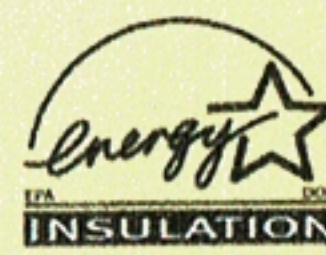
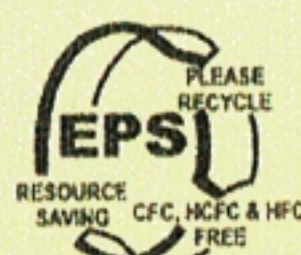
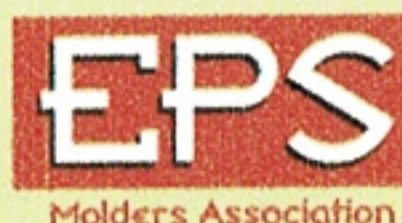
- **DO NOT COMPARE** polyisocyanurate conditioned R-Values by RIC-TIMA and PIMA to EPS R-Values as per ASTM C-578.
- Ask for a **20 year 100% R-Value Warranty**.
- EPS Insulation offers the **Best Insulating Value Per Dollar** than any material available today.

Features:

- **Low Moisture Absorption:** EPS' moisture absorption is low. Moisture takes the path of least resistance and travels around individual beads rather than through them; the non-interconnecting cell structure prevents capillary absorption. Moisture absorption rates decrease as density increase, but is still minimal.
- **Permeability:** EPS has a low permeability, but is not considered a vapor barrier.
- **Inert:** EPS experiences no physical or chemical breakdowns over time. No nutrient value to animals, insects, organisms.
- **No Leachates:** EPS will not contaminate the surrounding environment.
- **Design Flexibility:** EPS can be fabricated into various shapes and sizes as needed.

Design Cautions:

- **Flammability:** EPS is combustible and should not be exposed to flame or other ignition sources. EPS should be covered with a thermal barrier or otherwise installed in accordance with applicable code requirements.
- **Solvent Damage:** EPS is susceptible to damage by petroleum based solvents and their vapors. Protect with vapor barrier covering and/or use compatible adhesives when applicable.
- **Ultraviolet Damage:** Extended exposure to sunlight causes minor discoloration and surface dusting. Shield EPS from direct sunlight for prolonged periods of time.



The information in this bulletin is presented in good faith, and is believed to be accurate. All statements are made without warranty expressed or implied.

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