Plasti·Fab®
EPS PRODUCT SOLUTIONS
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Product Information Bulletin

ENERGREEN® Insulation - ASTM C578, Type I Material Properties

ENERGREEN® insulation is a rigid, closed-cell foam plastic insulation that meets the requirements for expanded polystyrene (EPS) insulation manufactured to ASTM C578, Type I. The addition of a laminated film to the top and bottom surfaces of ***ENERGREEN*** insulation provides a more durable product that is less susceptible to handling damage.

ENERGREEN Insulation Properties[1]		Units	ASTM Test	Type I
Nominal Density		pcf	C303	1.00
Compressive Resistance[2] *Minimum @10% deformation*		psi	D1621	10.0
R-value[3] *per inch thickness at mean temperature*	40 ºF	$\frac{ft^2 \cdot hr \cdot °F}{Btu}$	C518	4.2
	75 ºF			3.9
Water Vapor Permeance[4] *Maximum*		Perm	E96	0.5
Flexural Strength *Minimum*		psi	C203	25
Dimensional Stability *Maximum*		% linear change	D2126	2.0
Water Absorption[5] *Maximum*		% by volume	C272	4.0
Oxygen Index *Minimum*		volume %	D2863	24
Density *Minimum*		pcf	C303	0.90
Flame Spread Index *Maximum*			E84	<25
Smoke-Developed Index *Maximum*				<450

Sustainability

As part of its commitment to quality and ongoing sustainability initiatives, Plasti-Fab maintains ***GREENGUARD Gold Certification*** for ***ENERGREEN*** insulation with UL Environment, an independent global safety science organization. The ***GREENGUARD Gold Certification*** mark on ***ENERGREEN*** insulation gives assurance that insulation designed for use in indoor spaces meets strict chemical emissions limits, which contribute to the creation of healthier interiors.

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[1] ***ENERGREEN*** insulation properties are third party certified under a quality listing program administered by Intertek to ASTM C578, ***Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation***.

[2] Compressive resistance measured at 10 percent strain is not intended for use when ***ENERGREEN*** insulation will be used to support long-term compressive loads. Contact Plasti-Fab for additional information.

[3] For additional information on thermal resistance requirements refer to ASTM C578.

[4] The vapor permeance value provided above is a composite value for ***ENERGREEN*** insulation with laminated films. Where water vapour permeance is a design issue, contact Plasti-Fab technical services for additional information.

[5] ASTM Test Method C272 water absorption requires 24 hours submersion of specimen under water. The water absorption values above are applicable to specific end-use design requirements only to the extent that the end-use conditions are similar to requirements stated in the test method.