

## **Product Information Bulletin**

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## ENERGREEN® 25 Insulation - ASTM C578, Type IX Material Properties

**ENERGREEN**® 25 insulation is a rigid, closed-cell foam plastic insulation that meets the requirements for expanded polystyrene (EPS) insulation manufactured to ASTM C578, Type IX. The addition of a laminated film to the top and bottom surfaces of **ENERGREEN 25** insulation provides a more durable product that is less susceptible to handling damage.

ENERGREEN 25 Insulation Properties <sup>1</sup>		Units	ASTM Test	Type IX
Nominal Density		pcf	C303	2.00
Compressive Resistance <sup>2</sup> Minimum @10% deformation		psi	D1621	25.0
R-value <sup>3</sup> per inch thickness at mean temperature	40 °F	<u>ft²•hr•°F</u>	C518	4.8
	75 °F	Btu		4.4
Water Vapor Permeance <sup>4</sup> Maximum		Perm	E96	0.5
Flexural Strength Minimum		psi	C203	50
Dimensional Stability  Maximum		% linear change	D2126	2.0
Water Absorption <sup>5</sup> Maximum		% by volume	C272	2.0
Oxygen Index Minimum		volume %	D2863	24
Density Minimum		pcf	C303	1.80
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 25* insulation with UL Environment, an independent global safety science organization. The *GREENGUARD Gold Certification* mark on *ENERGREEN 25* insulation gives assurance that insulation designed for use in indoor spaces meets strict chemical emissions limits, which contribute to the creation of healthier interiors.

<sup>&</sup>lt;sup>1</sup> **ENERGREEN 25** insulation properties are third party certified to ASTM C578, **Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation**, under a quality listing program administered by Intertek.

<sup>&</sup>lt;sup>2</sup> Compressive resistance measured at 10 percent strain is not intended for use when **ENERGREEN 25** insulation will be used to support long-term compressive loads. Contact Plasti-Fab for additional information.

<sup>&</sup>lt;sup>3</sup> For additional information on thermal resistance requirements refer to ASTM C578.

<sup>&</sup>lt;sup>4</sup> The vapor permeance value provided above is a composite value for **ENERGREEN 25** insulation with laminated films. Where water vapour permeance is a design issue, contact Plasti-Fab technical services for additional information.

<sup>&</sup>lt;sup>5</sup> 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.