

Product Information Bulletin

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REPLACES:	NEW

ENERGREEN® HD Insulation - ASTM C578, Type II Material Properties

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

ENERGREEN HD Insulation Properties ¹		Units	ASTM Test	Type II
Nominal Density		pcf	C303	1.50
Compressive Resistance ² <i>Minimum @10% deformation</i>		psi	D1621	15.0
R-value ³ <i>per inch thickness at mean temperature</i>	40 °F	$\frac{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}{\text{Btu}}$	C518	4.6
	75 °F	Btu		4.2
Water Vapor Permeance ⁴ <i>Maximum</i>		Perm	E96	0.5
Flexural Strength <i>Minimum</i>		psi	C203	35
Dimensional Stability <i>Maximum</i>		% linear change	D2126	2.0
Water Absorption ⁵ <i>Maximum</i>		% by volume	C272	3.0
Oxygen Index <i>Minimum</i>		volume %	D2863	24
Density <i>Minimum</i>		pcf	C303	1.35
Flame Spread Index <i>Maximum</i>			E84	<25
Smoke-Developed Index <i>Maximum</i>				<450

Sustainability

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

¹ **ENERGREEN HD** 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 HD** 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 HD** 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.