

## Product Information Bulletin

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### PlastiSpan® XI Insulation - ASTM C578, Type XI Material Properties

**PlastiSpan® XI** insulation is a rigid, closed-cell foam plastic insulation that meets the requirements for expanded polystyrene (EPS) insulation manufactured to ASTM C578<sup>1</sup>. Table 1 provides material properties for **PlastiSpan XI** insulation meeting ASTM C578 as noted.

PlastiSpan XI Insulation Properties		Units	ASTM Test	Type XI
<b>Nominal Density</b>		pcf	C303	0.75
<b>Compressive Resistance</b> <sup>2</sup> <i>Minimum @10% deformation</i>		psi	D1621	5.0
<b>R-value</b> <sup>3</sup> <i>per inch thickness at mean temperature</i>	40 °F	$\frac{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}{\text{Btu}}$	C518	3.4
	75 °F	Btu		3.2
<b>Water Vapor Permeance</b> <i>Maximum</i>		Perm	E96	5.0
<b>Flexural Strength</b> <i>Minimum</i>		psi	C203	10
<b>Dimensional Stability</b> <i>Maximum</i>		% linear change	D2126	2.0
<b>Water Absorption</b> <sup>4</sup> <i>Maximum</i>		% by volume	C272	4.0
<b>Oxygen Index</b> <i>Minimum</i>		volume %	D2863	24
<b>Density</b> <i>Minimum</i>		pcf	C303	0.70
<b>Flame Spread Index</b> <i>Maximum</i>		E84		<25
<b>Smoke-Developed Index</b> <i>Maximum</i>				<450

<sup>1</sup> **PlastiSpan XI** insulation is manufactured to comply with ASTM C578, **Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation**.

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

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

<sup>4</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.