

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 C578¹. Table 1 provides material properties for **PlastiSpan XI** insulation meeting ASTM C578 as noted.

PlastiSpan XI Insulation Properties		Units	ASTM Test	Type XI
Nominal Density		pcf	C303	0.75
Compressive Resistance ² <i>Minimum @10% deformation</i>		psi	D1621	5.0
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	3.4
	75 °F	Btu		3.2
Water Vapor Permeance <i>Maximum</i>		Perm	E96	5.0
Flexural Strength <i>Minimum</i>		psi	C203	10
Dimensional Stability <i>Maximum</i>		% linear change	D2126	2.0
Water Absorption ⁴ <i>Maximum</i>		% by volume	C272	4.0
Oxygen Index <i>Minimum</i>		volume %	D2863	24
Density <i>Minimum</i>		pcf	C303	0.70
Flame Spread Index <i>Maximum</i>		E84		<25
Smoke-Developed Index <i>Maximum</i>				<450

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

² 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.

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

⁴ 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.