

Product Information Bulletin

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EnerSpan® Insulation Material Properties for ASTM C578 Types

EnerSpan® insulation is rigid, closed cell insulation with a silver-gray color that meets or exceeds requirements for expanded polystyrene (EPS) insulation manufactured to ASTM C578, **Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation**. **EnerSpan** insulation is manufactured using **Neopor® F5300 Plus**, a graphite-enhanced expandable polystyrene (GPS) resin provided by **BASF**.

The graphite within the silver-gray cellular structure of **EnerSpan** insulation reduces radiation heat transfer and results in an enhanced thermal resistance compared to white EPS insulation manufactured to ASTM C578. C578, Type II+ insulation meets requirements for use as a component in BASF Corporation – Wall Systems: **Senerflex Platinum CI**, **Pebbletex Platinum CI** and **Acrotex Platinum CI** EIFS.

Material Properties ¹	Units	EnerSpan Insulation ASTM C578 Types					
		I	VIII	II	II+	IX	
Nominal Density	pcf	1.00	1.25	1.50	NA	2.00	
Compressive Resistance <i>Minimum @10% deformation</i> ASTM D1621	psi	10.0	13.0	15.0	20.0	25.0	
R-value <i>per inch at mean temperature</i> ASTM C518	ft ² •hr•°F Btu	@ 40 °F	4.9	4.9	4.9	5.0	5.0
		@ 75 °F	4.7	4.7	4.7	4.7	4.7
Flexural Strength <i>Minimum</i> ASTM C203	psi	25	30	35	40	50	
Water Vapor Permeance <i>Maximum</i> ASTM E96	Perm for 1-inch	5.0	5.0	3.5	3.5	2.5	
Water Absorption² <i>Maximum</i> ASTM C272	% by volume	4.0	4.0	3.0	3.0	2.0	
Dimensional Stability <i>Maximum</i> ASTM D2126	% linear change	2.0	2.0	2.0	2.0	2.0	
Oxygen Index <i>Minimum</i> ASTM D2863	volume %	24	24	24	24	24	
Density <i>Minimum</i>	pcf	0.90	1.15	1.35	1.45	1.80	
Flame Spread ASTM E84	Index	<25					
Smoke-Developed ASTM E84	Index	<450					

¹ **EnerSpan** insulation thermal resistance values in the table above exceed minimum requirements for EPS insulation manufactured to ASTM C578.

² 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.