

# Product Information Bulletin

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## ENERGREEN® Insulation - CAN/ULC-S701 Material Properties

**ENERGREEN**® insulation is a rigid, closed-cell foam plastic insulation that meets requirements for CAN/ULC-S701<sup>1</sup> expanded polystyrene (EPS) insulation types as indicated in the table below. The addition of a laminated film to the top and bottom surfaces of **ENERGREEN** insulation provides a more durable product that is less susceptible to handling damage.

**ENERGREEN** insulation resists water absorption so it will retain its thermal resistance even in applications where severe temperature differentials occur. Marking on the printed face assists with cutting to required dimensions and installation of fasteners into framing at required spacing.

Material Property	Units	ENERGREEN Insulation CAN/ULC- S701 Types			
		1	2	3	
<b>Compressive Resistance</b> <i>Minimum @ 10% Strain</i> ASTM D1621	kPa (psi)	70 (10)	110 (16)	140 (20)	170 (25)
<b>Thermal Resistance</b> <i>Minimum per 25 mm (1 inch)</i> ASTM C518	m <sup>2</sup> ·°C/W (ft <sup>2</sup> ·h·°F/Btu)	0.65 (3.75)	0.70 (4.04)	0.70 (4.04)	0.74 (4.27)
<b>Flexural Strength</b> <i>Minimum</i> ASTM C203	kPa (psi)	170 (25)	240 (35)	280 (40)	300 (44)
<b>Water Vapour Permeance</b> <sup>2</sup> <i>Maximum</i> ASTM E96	ng/(Pa·s·m <sup>2</sup> ) (Perms)	30 (0.5)	30 (0.5)	30 (0.5)	30 (0.5)
<b>Water Absorption</b> <sup>3</sup> <i>Maximum</i> ASTM D2842	% By volume	4.0	3.0	3.0	2.0
<b>Dimensional Stability</b> <i>Maximum</i> ASTM D2126	% Linear Change	1.5	1.5	1.5	1.5
<b>Limiting Oxygen Index</b> <i>Minimum</i> ASTM D2863	%	24	24	24	24
<b>CCMC Evaluation</b>	Listing Number	12424-L	12425-L		12426-L
<b>Surface Burning Characteristics</b> <i>Rating or Classification</i> CAN/ULC S102.2	Flame Spread	290			
	Smoke Developed	Over 500			

<sup>1</sup> **ENERGREEN** insulation material properties are third party certified to CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering**, under a quality listing program administered by Intertek. See also Intertek Code Compliance Research Report CCRR-1072.

<sup>2</sup> The vapor permeance value provided above is a composite value for **ENERGREEN** insulation with laminated films. Where water vapour permeance is a design issue, contact Plasti-Fab technical services for additional information.

<sup>3</sup> Water absorption value is applicable to specific end-use design requirements only to the extent that the end-use conditions requires submersion under a head of water for an extended period of time.