

Product Information Bulletin

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PlastiSpan® Insulation Material Property Data Sheet CAN/ULC-S701-11 - Types 1, 2 and 3

CAN/ULC-S701-11, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering** is the National Standard of Canada for moulded expanded polystyrene (EPS) insulation. The table below provides material properties for Plasti-Fab insulation meeting CAN/ULC-S701, Type 1 (**PlastiSpan** insulation), Type 2 (**PlastiSpan HD** insulation) and Type 3 (**PlastiSpan XD** insulation).

Material Property	Test Method ¹	Units	CAN/ULC-S701 ²		
			Type 1	Type 2	Type 3
Thermal Resistance <i>Minimum per 25 mm (inch)</i>	ASTM C518	m ² •°C/W (ft ² •h•°F/BTU)	0.65 (3.75)	0.70 (4.04)	0.74 (4.27)
Compressive Resistance ³ <i>Minimum @ 10% Deformation</i>	ASTM D1621	kPa (psi)	70 (10)	110 (16)	170 (25)
Flexural Strength <i>Minimum</i>	ASTM C203	kPa (psi)	170 (25)	240 (35)	300 (44)
Water Vapour Permeance ⁴ <i>Maximum</i>	ASTM E96	ng/(Pa•s•m ²) (Perms)	300 (5.0)	200 (3.5)	130 (2.25)
Water Absorption ⁵ <i>Maximum</i>	ASTM D2842	% By volume	6.0	4.0	2.0
Dimensional Stability <i>Maximum, 7 Days @ 70 ± 2 °C (158 ± 4 °F)</i>	ASTM D2126	% Linear Change	1.5	1.5	1.5
Limiting Oxygen Index <i>Minimum</i>	ASTM D2863	%	24	24	24

1. The test methods used to determine material properties in the above table provide a means of comparing different types of cellular plastic thermal insulation. They are intended for use in specifications, product evaluations and quality control. They do not predict end-use product performance.
2. PlastiSpan insulation properties are third party certified under a quality listing program administered by Intertek Testing Services and are listed by the Canadian Construction Materials Centre (CCMC) under evaluation listing numbers 12424-L (Type 1), 12425-L (Type 2) and 12426-L (Type 3).
3. The minimum compressive resistance of PlastiSpan XD (type 3) insulation exceeds the requirement per CAN/ULC-S701-11, type 3.
4. WVP values quoted are maximum values for 25-mm thick samples with natural skins intact. Lower values will result for thicker materials.
5. The water absorption laboratory test method involves complete submersion under a head of water for 96 hours. 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 test method requirements.