

Product Information Bulletin

PlastiSpan Insulation Material Property Data Sheet CAN/ULC-S701-05, Type 1

CAN/ULC-S701-05, **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 property requirements from CAN/ULC-S701 for the PlastiSpan insulation type indicated.

Material Property	Test Method ¹	Units	Type 1 ²
Thermal Resistance ³ <i>Minimum</i>	ASTM C 518	$\frac{\text{m}^2 \cdot \text{°C}}{\text{W}}$	0.65
Water Vapour Permeance ⁴ <i>Maximum</i>	ASTM E 96	$\frac{\text{ng}}{\text{Pa} \cdot \text{s} \cdot \text{m}^2}$	300
Dimensional Stability <i>Maximum</i>	ASTM D 2126 7 Days @ 70 ± 2°C	% Linear Change	1.5
Flexural Strength <i>Minimum</i>	ASTM C 203 Procedure B	kPa	170
Water Absorption ⁵ <i>Maximum</i>	ASTM D 2842	% by volume	6.0
Compressive Resistance <i>Minimum @ 10% Deformation</i>	ASTM D 1621 Procedure A	kPa	70
Limiting Oxygen Index <i>Minimum</i>	ASTM D 2863	%	24

Notes to Table:

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 The properties of PlastiSpan insulation board manufactured to CAN/ULC-S701 are third party certified and labelled under a listing program administered by Intertek Testing Services.

3 Values quoted are minimum thermal resistance per 25-mm of thickness at mean temperature of 24 °C (75 °F). Multiply by 5.768 to obtain R-Value per inch of thickness – (Ft²·hr·°F)/BTU.

4 Values quoted are maximum values for 25-mm thick samples with natural skins intact. Lower values will result for thicker materials. Where water vapour permeance is a design issue, consult Plasti-Fab Sales representative for additional information.

5 Water absorption % by volume in CAN/ULC-S701 is determined using ASTM D2842 which involves complete submersion under a head of water for 96 hours.