

Product Information Bulletin

PlastiSpan® 30 Insulation Material Property Data Sheet

PlastiSpan® 30 insulation is a closed cell expanded polystyrene (EPS) insulation that meets or exceeds requirements for CAN/ULC-S701.1 (formerly CAN/ULC-S701), Type 3 and ASTM C578, Type IX.¹ **PlastiSpan 30** insulation compressive resistance is ideal for use in applications where moderately heavy loads are expected such as low temperature freezer floors.

Material Property	Test Method	Units	Values
Compressive Resistance ² <i>Minimum @ 10% strain</i>	ASTM D1621	kPa (psi)	210 (30)
Compressive Resistance ³ <i>Minimum @ 1% strain</i>		kPa (psi)	75 (10.9)
Thermal Resistance ⁴ <i>Minimum per 25 mm (1 inch) thickness</i>	ASTM C518	m ² •°C/W (ft ² •h•°F/BTU)	0.74 (4.3)
Flexural Strength <i>Minimum</i>	ASTM C203	kPa (psi)	345 (50)
Water Vapour Permeance <i>Maximum</i>	ASTM E96	ng/(Pa•s•m ²) (Perms)	130 (2.26)
Water Absorption ⁵ <i>Maximum</i>	ASTM D2842	% By volume	2.0
Dimensional Stability <i>Maximum, 7 Days @ 70 ± 2°C (158 ± 4°F)</i>	ASTM D2126	% Linear Change	1.5
Limiting Oxygen Index <i>Minimum</i>	ASTM D2863	%	24
Additional Material Properties for Reference			
Compressive Resistance <i>Minimum @ 5% strain</i>	ASTM D1621	kPa (psi)	170 (25.0)
Thermal Resistance ⁶ <i>Minimum per 25 mm (1 inch) thickness</i>	ASTM C518	Mean Temperature, °C (°F)	-3.9 (25) -10 (14)
		m ² •°C/W (ft ² •h•°F/BTU)	0.84 (4.8) 0.87 (5.0)

1. **PlastiSpan 30** insulation meets or exceeds requirements for CAN/ULC-S701.1, Standard for Thermal Insulation, Polystyrene, Boards, and ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.

2. Compressive resistance @ 10% strain exceeds minimum required for CAN/ULC-S701.1 and ASTM C578.

3. Compressive resistance at 1% strain is within the elastic limit for **PlastiSpan 30** insulation and is accepted as the design compressive resistance to limit long-term deformation under structural load.

4. Thermal resistance is at a mean temperature of 24 °C (75 °F) as per CAN/ULC-S701.1 and ASTM C578.

5. The water absorption laboratory test method involves complete submersion under a head of water for 96 hours. The water absorption value above is applicable to specific end-use design requirements only to the extent that the end-use conditions are similar to test method requirements.

6. **Thermal resistance values at additional mean temperatures of -3.9 °C (25 °F) and -10 °C (14 °F) are provided for reference purposes where applicable.**