

Product Information Bulletin

PlastiSpan® 60 Insulation Material Properties

PlastiSpan® 60 insulation is a closed cell expanded polystyrene (EPS) insulation. Material properties meet or exceed CAN/ULC-S701.1:2017, Type 3¹ requirements.

PlastiSpan 60 insulation high compressive resistance is ideal for use in applications where heavy loads are expected such as low temperature freezer floor or highway construction. **PlastiSpan 60** insulation closed cell structure resists water absorption so it retains its thermal resistance even in applications where severe temperature differentials occur.

Material Property	ASTM Test Method	Units	Values
Compressive Resistance <i>Minimum @ 10% strain</i>	D1621	kPa (psi)	414 (60)
Thermal Resistance ² <i>Minimum per 25 mm (1 inch) thickness</i>	C518	m ² ·°C/W (ft ² ·h·°F/BTU)	0.75 (4.3)
Flexural Strength <i>Minimum</i>	C203	kPa (psi)	517 (75)
Water Vapour Permeance <i>Maximum</i>	E96	ng/(Pa·s·m ²) (Perms)	130 (2.25)
Water Absorption ³ <i>Maximum</i>	C272	% By volume	2.0
Dimensional Stability <i>Maximum, 7 Days @ 70 ± 2°C (158 ± 4°F)</i>	D2126	% Linear Change	1.5
Limiting Oxygen Index <i>Minimum</i>	D2863	%	24
Additional Material Properties			
Compressive Resistance ⁴ <i>Minimum @ 1% strain</i>	D1621	kPa (psi)	180 (26.1)
Compressive Modulus <i>Minimum</i>		kPa (psi)	18,000 (2,610)
Shear Strength <i>Minimum</i>	C273	kPa (psi)	260 (38)
Thermal Resistance ⁵ <i>Minimum per 25 mm (1 inch) thickness</i>	C518	°C (°F)	-3.9 (25) -10 (14)
		m ² ·°C/W (ft ² ·h·°F/BTU)	0.86 (4.9) 0.87 (5.0)

1. **PlastiSpan 60** insulation material properties exceed requirements for CAN/ULC-S701.1:2017, **Standard for Thermal Insulation, Polystyrene, Boards**. **NOTE:** Material properties are as per ASTM C578, Type XV (**Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation**).

2. Thermal resistance measured at a mean temperature of 24 °C (75 °F) as per CAN/ULC-S701.1 requirements.

3. The water absorption laboratory test method involves complete submersion under a head of water. The laboratory 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.

4. Compressive resistance at 1% strain is within the elastic limit for **PlastiSpan 60** insulation and is accepted as the design compressive resistance to limit long-term deformation under structural load.

5. **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.**