

Product Information Bulletin

PlastiSpan® 60 Insulation Material Properties

PlastiSpan® 60 insulation is a closed cell expanded polystyrene (EPS) insulation that meets the requirements of ASTM C578¹, Type XV². **PlastiSpan 60** insulation closed cell structure resists water absorption so it retains its R-value even in applications where severe temperature differentials occur.

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 compressive resistance at 1% strain resists compressive creep under specified on the long term.

Material Property	ASTM Test Method	Units	Values	
Compressive Resistance <i>Minimum @ 10% strain</i>	D1621	kPa (psi)	414 (60)	
Thermal Resistance ³ <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 ⁴ <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 ⁵ <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 ⁶ <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. ASTM C578, **Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation**
2. **PlastiSpan 60** insulation material properties exceed requirements for CAN/ULC-S701 (**Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering**), type 3.
3. Thermal resistance value measured at a mean temperature of 24 °C (75 °F).
4. 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.
5. Compressive resistance at 1% strain is within the elastic limit for **PlastiSpan 40** insulation and is accepted as the design compressive resistance to limit long-term deformation under structural load.
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.**