

Product Information Bulletin

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Radon Guard™ Insulation - Sub-Slab Depressurization Panel

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Radon Guard™ insulation is a patent-pending sub-slab depressurization panel. The interconnected channels on the underside of the panel direct soil gas movement between the ground and the air barrier system to a vent pipe in slab on ground applications as required by National Building Code of Canada 2010, Section 9.13.4. The vent pipe is required to connect to a radon gas mitigation system as per applicable code.

CCMC Evaluation Report 13698-R confirms that **Radon Guard** Insulation is a code compliant replacement for a 100 mm thick layer of clean granular fill material as required by code.

Radon Guard insulation material properties below as per CAN/ULC-S701, Type 2 are adequate for typical residential

basement slab loads. See Plasti-Fab PIB 300 for information on allowable loads for various **Radon Guard** insulation types. Contact a Plasti-Fab technical sales representative for additional assistance.

CAN/ULC-S701 Material Properties ¹	Test Method	Units	Values
Thermal Resistance	ASTM	m²•°C/W	0.70
Minimum RSI per 25 mm (R per inch)	C518	(ft²•h•°F/BTU)	(4.04)
Compressive Resistance Minimum @ 10% Deformation	ASTM	kPa	110
	D1621	(psi)	(16)
Flexural Strength	ASTM	kPa	240
Minimum	C203	(psi)	(35)
Water Vapour Permeance Maximum	ASTM	ng/(Pa·s·m²)	200
	E96	(Perms)	(3.5)
Water Absorption Maximum	ASTM D2842	% By volume	4.0
Dimensional Stability Maximum, 7 Days @ 70 ± 2 ℃ (158 ± 4 ℉)	ASTM D2126	% Linear Change	1.5
Limiting Oxygen Index Minimum	ASTM D2863	%	24

¹ CAN/ULC-S701, **Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering** is the National Standard of Canada for moulded expanded polystyrene (EPS) insulation. Material properties are certified under a listing and certification program monitored by Intertek Testing Services.



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How does Radon Guard insulation work?

Radon Guard insulation panels are installed with the interconnected channels facing down. This creates a space for radon gas to move to the vent pipe. The radon gas can then be removed when the vent pipe is attached to a mitigation system.

The table below provides dimensions and RSI (R-value) for standard Radon Guard insulation panels available.



Radon Guard Insulation Overall Panel Dimensions		RSI	R-value
millimeters	inches	m²₌°C/W	ft²•h•°F/BTU
914 x 1219 x 89	36 x 48 x 3.5	1.4	8.1
914 x 1219 x 102	36 x 48 x 4.0	1.8	10.1
914 x 1219 x 114	36 x 48 x 4.5	2.1	12.1
914 x 1219 x 127	36 x 48 x 5.0	2.5	14.1
914 x 1219 x 140	36 x 48 x 5.5	2.8	16.2

Note: *Radon Guard* insulation thickness includes 38 mm (1 $\frac{1}{2}$ ") high interconnected channels on the underside of panel.