RADON GUARD™

STRUCTURAL UNDER-SLAB VENTILATION

VENTILATION • INSULATION • DRAINAGE Key components of a radon mitigation system

Evaluated and approved as a code alternative solution (CCMC 13698-R).

Radon Guard™ will ensure your new dwelling is safe and free from harmful levels of radiation.

Radon Guard is a patent-pending, structural under-slab ventilation panel system that allows for soil gas removal, insulation and a capillary break between the ground air barrier system.

Product description

Radon Guard is a sub-slab depressurization panel that allows soil gas movement between the ground and the air barrier system to a vent pipe that can be connected to a mitigation system.

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

The interconnected channels on the underside of the panel depressurize the sub-slab space to direct radon gases to the vent pipe, which would then be connected to a radon gas mitigation system.

How does radon get into your home?

Radon is a radioactive gas. It comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation.

Your home traps radon inside where it can build up. Any home may have a radon problem.

What is radon?

Radon is a gaseous radioactive element. It is an extremely toxic, colourless gas derived from the radioactive decay of radium.

It can be condensed to a transparent liquid and to an opaque, glowing solid.

What is the risk?

Radon is the second leading cause of lung cancer and the leading environmental cause of cancer.

Evaluation report / Rapport d'évaluation CCMC 13698-R

Sub-Slab Depressurization Panel
Sous-Slab Panneau de Dépressurisation

Patent 9803356 / Brevet 9803356

panel dimensions / dimensions du panneau	R-value	RSI
36 x 48 x 3.5	8.1	1.4
36 x 48 x 4.0	10.1	1.8
36 x 48 x 4.5	12.1	2.1
36 x 48 x 5.0	14.1	2.5
36 x 48 x 5.5	16.2	2.9

Radon™ Environmental
Radon Environmental
Solutions for a healthy indoor environment

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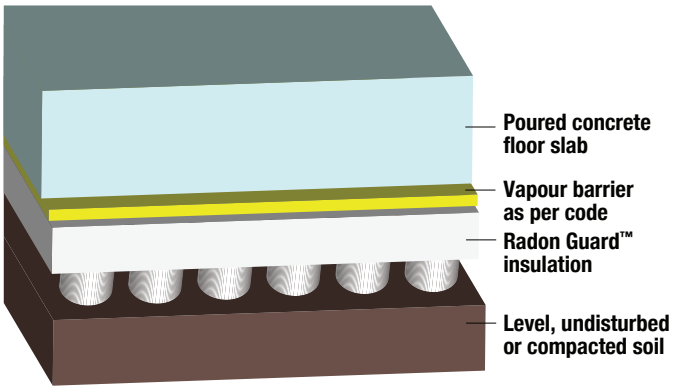
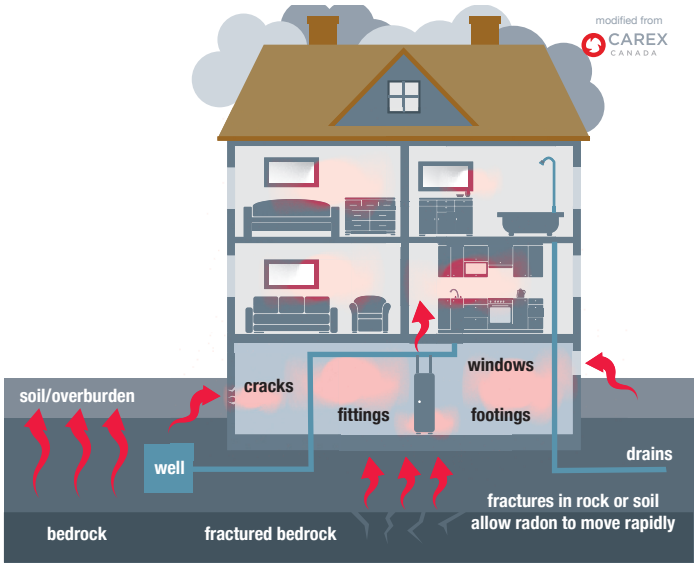
How does it work?

Install Radon Guard insulation panels 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 pipe is attached to a mitigation system.



CCMC 13698-R, pat. 9803356



For a full explanation of the installation procedures for Radon Guard insulation, visit www.radoncorp.com.

Radon Guard insulation material properties as indicated below per CAN/ULC-S701, Type 2 will be adequate for typical residential basement slab loads. Where higher slab loads are anticipated, contact a Radon Environmental technical sales representative for information on addition product type options (888.527.4717).

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

[1] CAN/ULC S-701, 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 progarm monitored by Intertek Testing Services.

HOLMES APPROVED PRODUCTS

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