

IPEX is excited to offer RadonX™

Soil Gas Venting

Answers to commonly asked questions

What is Radon Gas?

Radon is a radioactive gas that forms naturally from the breakdown of uranium in soil. It is invisible and odorless.

Why is Radon Gas a concern?

It can accumulate to dangerous levels in enclosed spaces that are in contact with soil, such as homes, and can become a risk to human health. According to Health Canada, long-term radon gas exposure is linked to 16% of the lung cancer deaths in Canada and is the leading cause of lung cancer among non-smokers*.

Does Radon Gas exist in all houses?

Yes. Almost all houses in Canada have radon gas. However, radon concentrations vary from province to province and from house to house as many factors affect the final indoor levels. Soil characteristics, construction type, foundation condition, and the use of exhaust fans, appliances and windows that affect the pressure difference between the soil and the house are the most critical factors.

How can homeowners determine if Radon Gas is a problem in their dwelling?

It is impossible to predict radon levels in a home; therefore, the only way to know for sure is via testing. Radon test kits can be purchased online at takeactiononradon.ca or be found at many hardware and building supply stores across Canada. If the measured radon concentrations exceed the Canadian guideline level of 200 Bq/m³, Health Canada strongly recommends that homeowners take action to reduce the levels*.

How can Radon Gas levels be reduced in new construction?

The most common and effective approach for radon gas reduction in a house is through sub-slab depressurization. This method involves installing:

- 1) a perforated pipe below the foundation floor that collects radon gas
- 2) a full vent stack that runs upwards throughout the inside of the building releasing the gas outside above the roof.

In the majority of cases, the combination of 1) and 2) is sufficient to lower radon levels to acceptable limits within the house. If required, or desired, further reduction can be achieved by installing a radon fan to the vent stack.



Reducing the health risks of radon gas

A complete piping solution

Is installing a Radon Gas vent system mandatory by the Building Code?

Many municipalities are being proactive in requiring a full vent stack to reduce radon levels in homes and have dedicated radon programs for new construction. As a minimum, it is very critical to install the sub-slab pipe and radon rough-in stub as per the National Building Code 2015 requirements in the event that future radon mitigation is required.

What is RadonX™?

RadonX™ Soil Gas Venting is a complete PVC piping solution that is specifically engineered, tested and labelled to address the need for collecting and venting radon gas from a dwelling. Made to Schedule 40 thickness, it is comprised of solid and perforated pipes, fittings, cements and accessories that comply with the requirements of National and Provincial Building Codes for soil gas venting.

Which piping standards does RadonX meet?

While there is no dedicated piping standard for the application of soil gas venting, RadonX offers the following compliances:

- All pipes and fittings comply with the material and testing requirements of common DWV standards: CSA B181.2 and ASTM D2665;
- The product markings meet CGSB/CAN 14911;
- The new ultra low VOC (<425 g/L) PVC cement meets ASTM D2564; and
- The system is tested to additional venting performance tests from ULC S636 standard including gas leakage, pull-out and combustibility.

* <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/radon-what-you-need-to-know.html>.

When should RadonX be installed?

It is more practical and economical to install RadonX during construction of a new home. In order to reduce the health risks of radon gas, all new low-rise residential homes should have a RadonX soil gas venting system.

Can RadonX be installed in existing homes?

Yes. IPEX recommends that all retrofit applications for existing homes should be carried out by a professional who is certified under the Canadian National Radon Proficiency Program (C-NRPP). Please visit c-nrpp.ca for more information.

Is Installer training available?

Yes, RadonX™ Soil Gas Venting installer training is available.

