

## What is Radon?

Radon is a colourless, odourless radioactive gas. It is formed by the radioactive decay of the small amounts of uranium that occur naturally in all rocks and soils.

## Why is it a risk to our health?

Radioactive elements decay and emit radiation. Any exposure to this type of radiation is a risk to health radiation is a form of energy and can cause damage in living tissues.

## Where is Radon found?

Radon is everywhere; formed from the uranium in all rocks and soils. Outdoors everywhere and indoors in many areas the radon levels are low and the risk to health is small. The map opposite shows the risk areas.



#### Check whether your property in a Radon affected area?

Every building contains Radon, but the levels are usually low. The chances of a higher level depend on the type of ground. Public Health England has published a map showing where high levels are more likely. Explore the map to review your area. <u>https://www.ukradon.org/information/ukmaps</u>

### How is it measured?

Radon can be, and is, measured and reported in units of activity per cubic metre of air: Bq/m3. The average level in the UK is around 20 Bq/m3; with levels as high as 10,000 Bq/m3. There are required UK Action Levels; simply put, these are:

- 200 Bq/m3 in residential properties
- 300 Bq/m3 in occupational facilities

Where the levels are above these, mitigation measures must be put in place to bring them below the Action Levels.





Radon gas penetrates through cracks and fissures in the ground and properties. A combination of factors can affect the amount of radon that enters the structures. Heating and certain ventilation flows can result in a reduction in the air pressure within the building. This in turn can draw radon in from the ground into the room. Lack of ventilation can result in the Radon remaining in the room. The level of radon in a property varies over time, by day and month.



Radon Detectors

# **Radon Detection**

The best way to establish radon levels in your house is to measure with a radon test kit. Due to weather conditions, temperatures and atmospheric pressure, radon levels vary day to day which is why PHE recommend that a measurement period should be at least 3 months. If a home is above 200Bq/m3 then remediation measures should be taken. Radon is only harmful if you are exposed to it over a long period.

## **Radon Remediation**

Some simple actions such as sealing around loft-hatches, sealing large openings in floors and extra ventilation do not reduce radon levels on their own. When combined with other effective measures, they can improve the reduction of radon levels. Completely sealing floors is difficult and can cause rot in wooden floors. The diagram below is intended as a guide.



For houses with mixed floor types, a combination of the above can be used. \*The level of 500 Bq m<sup>-3</sup> is an approximate guide.

The type of remediation measures will vary by location and level detected. This may result in one property being fitted with a simple vent whilst an adjacent property may require a comprehensive system of a sump with pump. Specialist knowledge is required for the choice of appropriate measure.

Call our friendly customer service team for advice and support.

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