

Good Repair Guide

Radon solutions in older homes

Chris Scivyer

This Good Repair Guide provides guidance to builders and homeowners carrying out installation works to reduce indoor radon levels in older homes. It describes the different construction features found in these properties and explains how commonly used radon remedial measures can be tailored to suit older buildings, including those that are listed buildings or located within conservation areas.

This Good Repair Guide supplements the guidance given in Good Repair Guides 37/1, 37/2 and 37/3.

Background

Radon is a naturally occurring radioactive gas that is present in all buildings. Prolonged exposure to high levels causes lung cancer. Public Health England (PHE) (formerly HPA) recommends that householders with concentrations above the action level (200 Bq m⁻³) should reduce their radon concentrations as far as they can and ideally to below the target level (100 Bq m⁻³).

Since the late 1980s, when advice on radon was first launched, many thousands of homes and workplace buildings across the UK have had radon solutions fitted to reduce indoor radon levels. Solutions have been successfully installed in all types and ages of properties.

It should be noted that BRE cannot guarantee that the measures described in this guide will reduce the radon level in a home; however, similar measures have regularly proven successful in homes elsewhere in the UK.



Figure 1: Typical old stone cottage

Many people assume that radon reduction measures will not work in older buildings, or if they do work then the cost will be prohibitive. By discussing different construction features of older buildings and their impact upon radon and the choice of solutions, this guide shows that:

- older properties can be remedied without adversely affecting their aesthetics or potential resale value
- remedial measures should not be significantly more expensive for older properties
- older properties can be remedied without causing structural damage (Figure 1)
- listed buildings or buildings located within a conservation area can, and have, been remedied.