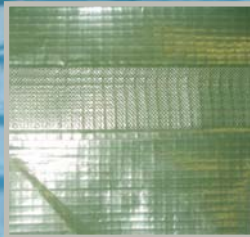
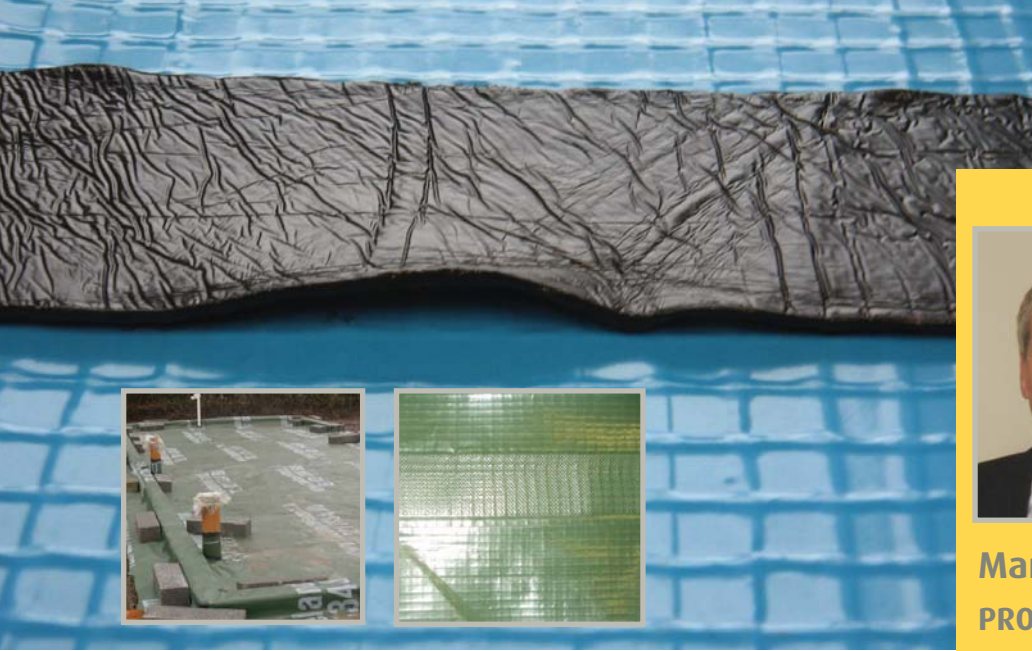


Industrial & Commercial

**BUILDING
REGULATIONS
YEARBOOK 2008**



Part C



Martin Freeman
PROTEN SERVICES

Main photograph shows taped joints on radon membranes

Inset left shows heated joint on radon membrane, a more effective option

Inset far left shows radon membrane on site

Out of sight – out of mind?

Martin Freeman, Managing Director of ProTen Services Ltd, explains why providing protection from radon gas is not an issue that can be ignored and recommends the 'best practice' for radon protection in new buildings

IF RADON, a naturally occurring radioactive gas, enters a building it can build to potentially dangerous concentrations. There are approximately 2,500 deaths in the UK every year from lung cancer, linked directly to exposure to high concentrations of the gas.

Section C1 of Schedule 1 of the Building Regulations 2000 states that "Reasonable precautions shall be taken to avoid danger to health and safety caused by contaminants on or in the ground covered, or to be covered, by the building...".

Section 2.39 of Approved Document C (2004 edition) explains that "...all new buildings... built in areas where there may be elevated radon emissions, may need to incorporate precautions against radon". Section 2.40 continues to inform that "guidance on the areas susceptible to radon" can be found in BRE Report 211 (revised 2007).

These Regulations unfortunately do not appear to provide a definitive ruling as to whether a new building in any given area must have radon protection installed, however ProTen Services advise all specifiers and developers to err on the side of caution.

ProTen Services recommend that a radon barrier be fitted in any new

development within a government designated radon Affected Area.

As far as practicable, membrane joints should be heat welded, rather than taped, to minimise the risk of leakage. Pre-formed collars or 'top-hats' should be used around service inlets.

In any area where the Health Protection Agency has predicted that more than 3% of homes will contain high radon levels, provisions for future remedial work should also be made. This involves the creation of a sump under the building's foundations, complete with an extract pipe that leads out of the property.

Radon protection is a specialist area of work, and should therefore only be carried out by trained professionals.

A recent study found a staggering 60% of radon membranes installed in new properties had failed to prevent the gas from entering the building, demonstrating that effective design, quality of materials and standard of specialist workmanship are paramount. It is also essential to conduct post-construction testing.

For more information on ProTen Services Ltd, one of the UK's leading radon experts with over 20 years' experience of testing and remediation

PART C EXPLAINED...

SITE PREPARATION AND RESISTANCE TO CONTAMINANTS AND MOISTURE

Many subjects are embraced by this part. These include the weather and water tightness of buildings, subsoil drainage, site preparation, and measures to deal with contaminated land, radon, methane, and all other site related hazardous and dangerous substances.

The current edition is that of 2004, which came into force on 1 December 2004.

For further information on Part C see: www.planningportal.gov.uk/buildingregulations

nationally, please visit: www.protenservices.co.uk or call Head Office on 01225 447960