

Roof & Building Leak Detection & Prevention

GUIDANCE & INFORMATION NOTE NO. 11

Timber Roofs & Electronic Integrity Testing

The most common testing undertaken to confirm waterproofing integrity is non-destructive electronic leak testing using either the low or high voltage earth leakage testing methods. To produce accurate and reliable results this testing requires within the roof for there to be an electrically conductive component, for example, metal or concrete structural deck or foil faced insulation board. On some roofs, for example, those comprising a timber deck with a tissue faced insulation there is no electrically conductive component within the roof to conduct the voltage and therefore electronic integrity testing will not work. As an alternative to obtain an independent assessment the installed waterproofing is visually inspected and the laps physically tested.

Visual Inspection

The waterproofing is closely visually inspected to identify if there are any breaches at punctures (splits, tears or holes) in it where rainwater may penetrate into the roof construction.

Physical Lap Testing

The integrity of the site formed laps are physically tested to pinpoint any capillaries through them where they are not fully watertight either due to, for example, delamination or ineffective initial welding where some rainwater may be able to penetrate through them and into the roof.

Conclusion

On most but not all roofs with timber decks electronic integrity testing of the waterproofing will not produce accurate and reliable results and should not be used.



ERC offer a range of services, including

- Electronic Integrity/Leak Testing.
- Building Envelope Leak Investigations.
- Thermal Imaging.
- Roof & Floor Dewatering.
- Expert Witness.
- Roof Surveys, Defect & Maintenance Schedules.

i ERC is an independent specialist Roofing Consultancy and Testing Services Company. ERC work predominantly throughout the UK* providing specialist specific and/or combination testing regimes to quickly and accurately determine the causes of leaks through any part of the building façade and to identify areas of retained/entrapped water within the construction to main and roofing contractors, building owners and developers in both the commercial and domestic markets. **for inquiries about procuring our services outside the UK please contact head office.*

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