

# Roof & Building Leak Detection & Prevention

## GUIDANCE & INFORMATION NOTE NO. 1

### ELECTRONIC INTEGRITY/LEAK TESTING



#### Introduction.

Leaks below flat roofs, terraces, podiums, balconies or car park decks can cause serious and costly disruption. Costs to manage and stop them can soon escalate. These are not limited to just the repairs but can include loss of revenue, reduced production and damage to fixtures and fittings.

Identifying the cause of the leak can be a time-consuming process, often involving several attempts to repair the waterproofing and stop the leak. Some leaks are due to defects that are not visibly identifiable and even an experienced person may not find them by visual inspection alone.

Non-destructive electronic integrity/leak testing quickly and accurately pinpoints the exact locations of the breaches in the waterproofing with minimal disruption to the building. Targeted effective repairs can then be undertaken.

#### How Does It Work?

The testing introduces a voltage over the surface of the waterproofing and by tracking the flow of the voltage identifies any pathways where it flows to earth, such as, the roof deck, therefore pinpointing the leak or leaks.

#### Is it expensive?

The cost of repeated site visits by a contractor to keep repairing the waterproofing, or the cost of replacing it unnecessarily, can run into many thousands of pounds. The waterproofing can be electronically tested, often in one-day at a cost of only a few hundred pounds. So, no it is not expensive.

#### When Is It Used & What Will It Find?

Used on newly installed waterproofing as a quality assurance procedure to ensure you hand over without any breaches in it removing liability for latent defects.

Used on existing construction as an investigative procedure to pinpoint the locations of breaches in it.

In both situations the testing will identify the precise locations of breaches where rainwater can penetrate through the waterproofing and penetrate into the construction.

#### Will it test all of the waterproofing?

The testing can only be undertaken on the exposed accessible field expanse of the waterproofing. Paving slabs, etc. directly on the surface, need to be removed and set aside. Also, the waterproofing below photovoltaic panels and HVAC or steels with a low clearance cannot be tested. So, no not all of the waterproofing may be testable.



#### ERC offer a range of services, including

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

**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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