

EFVM® Membrane on Concrete (balconies, podiums)

Product Technical Statement: 106570



EFVM® is a low voltage method of Quality Assuring waterproofing membrane applications

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme



EFVM® confirms that this minimum level of assurance has been met or exceeded by the following:

International Leak Detection Ltd

[Technical Data](#)

Technical Statement

Product Description

What is EFVM®?

EFVM® is a low voltage test method that creates an electrical potential difference between a non-conductive membrane surface and a conductive substrate, which is earthed or grounded.

By applying water on the membrane surface and using the water as a conductive medium, an electric field is created and a breach in the membrane creates a vector (ground fault connection). The EFVM® technician reads the electric flow travelling across the membrane, mapping the breaches with pin point accuracy.

Advantages of EFVM® testing system

- Accurate pinpointing of membrane breaches
- Non-destructive to the membrane
- Can be performed on sloped substrates
- Membrane defects can be repaired and retested without delay to the construction programme
- Limited use of water required for the EFVM® test
- EFVM® can be performed during inclement weather
- Overburden installation can proceed immediately

Scope of use

EFVM® is used to find defective workmanship and damage in the application of waterproofing membrane. This then allows the applicator to repair on the spot and handover a watertight membrane.

EFVM® is an approved testing as stated by Waterproofing Membrane Association Incorporated Torch on Code of Practise.

EFVM® tests **ALL** membranes apart from Butyl rubber membranes because of the Carbon contained in the make up of the product. (carbon absorbs electricity, not an isolator).

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause E2 External moisture:** Performance E2.3.7(a)

Evidence

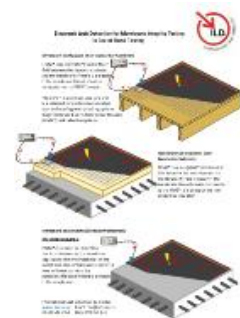
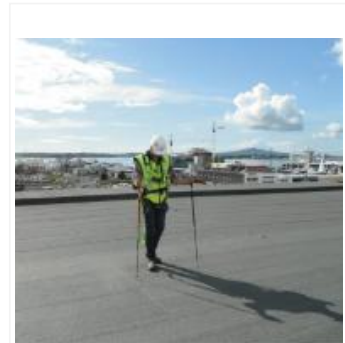
The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

EFVM® complies with E2 by ensuring the integrity waterproofing membrane is installed in accordance with NZBC.

Waterproofing Membrane Association Incorporated Torch on Code of Practice

6.5 Testing There are two methods of testing the integrity of a torch-on membrane after installation, either flood testing or electronic field testing. In both cases, after the testing has been carried out a written report confirming the integrity of the membrane must be supplied to the Main Contractor.

6.5.2 Electronic Field Testing Electric field testing works by passing a controlled electric current through the membrane with either a thin water film applied over the membrane or a pre-installed non-obtrusive metal grid under the membrane being the conductive medium. Any point of electric current leakage will



masterspec partner

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indicate the location of a fault in the membrane system. This testing must be carried out by a trained technician.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:

International Leak Detection Ltd

[Technical Data](#)

Product Criteria

Design requirements

Two Types of Substrate

Conductive - Concrete

EFVM® can be performed on the membrane application after the installation of the membrane. The concrete and reinforcing steel will allow an electrical connection if there is a breach in the membrane.

Installation requirements

-No installation of Vector Mesh required on a Concrete substrate

Company Product Information

Videos

[EFVM® testing by Adam Black Chicago office](#)

[ILD Integrity Test Setup](#)



Date last validated: **03 February 2017**



Date last updated: **03 February 2017**

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