



BEAL Appraisal Certificate



APPRAISAL # M2058

EXPIRY DATE: 31 July 2024

The Elastik Liquid Applied Waterproofing Membrane System



Product

1.1 This Appraisal Certificate covers the 'Elastik Waterproofing Membrane System' which is a liquid applied waterproofing membrane for use on external building elements, where an impervious waterproofing membrane is required to meet the requirements of Clause E2.

1.2 The Elastik Waterproofing Membrane System has been assessed as suited for the waterproofing of roofs, decks and below ground basements as specified in the Elastik Waterproofing Membrane System 'Liquid Application Guide'.

1.3 The Waterproofing Membrane System is to be applied by persons trained and approved by Waterproofing Warehouse Ltd, within the scope and limitations described in the Appraisal-holder's Application Guide.

NZ Building Regulations

2.1 In the opinion of BEAL, the Elastik Waterproofing Membrane System, when designed, installed and maintained in accordance with the statements and conditions of this Appraisal Certificate, will meet the following provisions of the New Zealand Building Code:

Clause B1 MECHANICAL / ADHESION PROPERTIES

The Elastik Waterproofing System meets the requirements of Performance B1.3.2. (Refer para 6.3)

Clause B2 DURABILITY

Performance B2.3.1 (b) 15 years and (a) at least 50 years (for tanking applications). The Elastik Waterproofing Membrane System meets this requirement see paragraphs 6.4

Clause E2 EXTERNAL MOISTURE

Performance E2.3.1. The Elastik Waterproofing Membrane System will meet this requirement. (Refer para 6.5)

Clause F2 HAZARDOUS BUILDING MATERIALS

Performance F2.3.1. The Elastik Waterproofing Membrane System will not present a health hazard to people. (Refer para 6.6)

2.2 The Elastik Waterproofing Membrane System has been appraised as an 'Alternative Solution' in terms of compliance with the New Zealand Building Code.

Applicant:

Waterproofing Warehouse Ltd.

Appraised by:

BEAL

2A Plimmerton Drive
Plimmerton, Porirua, NZ

P: +64 4 233 6661

E: bts@beal.co.nz

www.beal.co.nz

**WATERPROOFING
WAREHOUSE**

Unit 3C/3 Marken Place,
Glenfield, Auckland.

P: 09 280 4242

E: office@wpwl.co.nz

www.wpwl.co.nz

The most up to date version of this BEAL Appraisal Certificate can be viewed at www.beal.co.nz

© 2021 Building Element Assessment Laboratory Ltd. All rights reserved. Use of this document is subject to BEAL's Terms and Conditions

Scope and Limitations

3.1 The Elastik Waterproofing Membrane System has been appraised for use as a waterproofing membrane over roofs, gutters, floors and wall substrates that are sound construction and in compliance with the NZBC;

3.2 The design and construction of any suspect supporting structure and substrate, including control joints, or termination points or the like, are to be to specific design and are therefore the responsibility of the owner/building designer and are outside the scope of this Appraisal Certificate.

3.3 The Elastik reinforced waterproofing membrane system shall be installed only by NZ trained Waterproofing Warehouse Ltd approved applicators.

3.4 The owner of the building is responsible for the proper maintenance of the applied Elastik membrane system as set out in the Waterproofing Warehouse Ltd maintenance advice along with the Elastik Waterproofing Membrane System Warranty.

Technical Literature

4.1 The Elastik Waterproofing Membrane System Application Guide dated July 2020 must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained within the Application Guide and scope of this Appraisal Certificate must be followed.

4.2 For a copy of this Application Guide please contact Waterproofing Warehouse Ltd.

Technical Details

5.1 The product can be applied over concrete substrates that are in compliance with the NZBC. The substrate must be well prepared by the applicator as described in the Elastik Application Guide. Materials and accessories supplied by Waterproofing Warehouse Ltd. are as follows:

- **Novapoxy WB**

The Novapoxy WB primer is a 2 component water-borne epoxy primer for wet cementitious substrates.

- **Alumicote**

The Alumicote is a solvent based bituminous aluminium coloured paint and reflective UV topcoat;

- **Elastik Membrane**

The Elastik bodycoat is a bituminous elastomeric water based liquid membrane;

- **Enviroflect**

Is a water based aluminium coating especially formulated for surfaces coated with Elastik Waterproofing Membrane;

- **Aquaseal**

Is a water based coating with superior durability designed to provide colour over the Elastik waterproofing membrane system;

- **Fibreglass mat**

- **Supporto Antifessura (Polyester Reinforcement)**

- **Multiflex Tape**

5.2 Refer to the Elastik Waterproofing Membrane System Application Guide for the method of application.

Handling and Storage

5.3 All components must be stored inside, in a well ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Advice for designers

General

6.1 The Elastik Waterproofing Membrane System is a ready-to-use water-based, semi-dense paste that is suitable for roof, deck and below ground applications.

6.2 Before any application can be carried out, it is essential that a careful inspection of the intended areas to be waterproofed, is completed as set out in the Elastik Application Guide .

Adhesion - Clause B1.3.2

6.3 The applied Elastik Waterproofing Membrane System has good adhesion to a wide range of substrates and therefore meet the requirements of clause B1.3.2.

Durability - Clause B2

6.4 The Elastik Waterproofing Membrane System when used in accordance with this Appraisal Certificate, subject to normal conditions of environment, use, and good housekeeping maintenance, is expected to have a serviceable life of at least 50 or 15 years according to use.

External Moisture - Clause E2

6.7 The Elastik Waterproofing Membrane System will comply with the requirements of this clause when the system is applied to roofs, gutters and decks, which shall follow the application procedures set out in the Application Guide.

Hazardous Building Materials - Clause F2

6.9 Performance F2.3.1. The cured Elastik Waterproofing Membrane System when installed according to the requirements of this Appraisal Certificate meets this requirement.

Installation Requirements

Installation Skill Requirement

7.1 The Elastik Waterproofing Membrane System must be carried out by approved experienced applicators under the supervision of a person who has been trained and approved by Waterproofing Warehouse Ltd.

Application Over Repaired Substrates

7.2 The installation of the Elastik Waterproofing Membrane System over any repaired parts of a substrate such as roofs, gutters, decks, floors or walls in wet areas, is subject to specific design and outside the scope of this Appraisal Certificate.

Membrane Remedial Work

7.3 Mechanical damage is easily repaired and resurfaced within the Elastik Waterproofing Membrane System. Waterproofing Warehouse Ltd provides advice to cover surface preparation, remedial work to the installed Elastik Waterproofing Membrane System.

Health and Safety

7.4 The safe use and handling of the coating system and related components are provided in the Application Guide Refer Safety Data Sheets.

Basis of this Appraisal

BEAL use the compliance verification procedure to demonstrate compliance with the relevant clauses of the NZBC based on a risk analysis procedure. The following is a summary of the technical investigations carried out:

Assessments

8.1 The following lists assessments of the Elastik Waterproofing Membrane System completed by BEAL:

Previous Assessments

BEAL Testing Service has carried out extensive assessments in the past of the performance of the Elastik Waterproofing Membrane System and were able to verify compliance with the relevant provision of the Elastik Zealand Building Code.

Testing

8.2 The following testing of the Elastik Waterproofing Membrane System has been undertaken by BEAL in addition to testing carried overseas:

- ◆ Hydrostatic test/ water absorption
- ◆ Tensile strength before and after freeze-thaw conditioning
- ◆ Pull off adhesion after heat/freeze aging
- ◆ Determination of water permeability

In-service History

8.3 The Elastik Waterproofing Membrane System has been in use and, when subject to the manufacturer's requirements, performed satisfactorily for the past 15 years in New Zealand and other parts of the world, in a wide range of conditions.

Other Investigations

8.4 An assessment was made of the durability of the Elastik Waterproofing Membrane System with a durability opinion given by BEAL.

8.5 The installation of the membrane system was also evaluated in practical building situations assessing the following;

- ◆ Ease of installation
- ◆ Potential risks of non performance when being installed
- ◆ Any external factors that could affect the quality of the installed product
- ◆ Ease of repair or maintenance
- ◆ Comparison with similar systems

8.6 The Technical Literature has been examined by BEAL and found to be satisfactory.

Quality

8.7 The design of the Elastik Waterproofing Membrane System products by Waterproofing Warehouse Ltd has been assessed by BEAL, and details regarding the quality and composition of the materials used, obtained by BEAL, were found to be satisfactory.

8.8 The quality of materials, components and accessories supplied by Waterproofing Warehouse, is managed through the use of a Building Product Quality Plan (BPQP).

8.9 The Waterproofing Warehouse BPQP ensures continuous conformance with the quality requirements from purchase to supply of components.

8.10 The Waterproofing Warehouse Ltd BPQP is

reviewed at least annually by BEAL.

8.11 Designers are responsible for the substrate design, and building contractors are responsible for the quality of construction of the substrate systems in accordance with the instructions of the substrate manufacturer, Waterproofing Warehouse Ltd and this Appraisal Certificate.

8.12 Building owners are responsible for the maintenance of any tiling systems applied over the Elastik Waterproofing Membrane System in accordance with the instructions of Waterproofing Warehouse Ltd and this Appraisal Certificate.

8.13 Waterproofing Warehouse Ltd.'s Building Product Quality Plan is reviewed and audited at least annually by BEAL or their appointed agent.

8.14 Designers are responsible for the substructure design, and building contractors are responsible for the quality of construction of the substructure or Elastik substrate in accordance with the instructions of the substrate manufacturer and this Appraisal Certificate.

Sources of Information

- ◆ Test report from Treviso Tecnologia on fire resistance
- ◆ Waterproofing Warehouse Ltd's 'Elastik Application Guide' version 1
- ◆ Test Report 51-09-0124ae from TUM
- ◆ Test Report 51-09-0124/001ae from TUM
- ◆ Report from Mr. Austin Brooks covering the conversion of Water Vapour Diffusion Resistance Coefficient figure.
- ◆ Technical Data supplied by the manufacturer
- ◆ BEAL test report TR110419 - Hydrostatic Test
- ◆ BEAL test report TR110822- Assessment of Durability
- ◆ AS 2908.2:2000 Cellulose-cement products – flat sheet
- ◆ AS/NZS 2269:1994 Plywood – structural
- ◆ NZS 3101: 1995 The design of concrete structures
- ◆ NZS 3604:2011 Timber framed Buildings
- ◆ Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third edition May 2008, incorporating amendments 1 to 4.
- ◆ New Zealand Building Code Handbook and Approved Documents, Building industry Authority, 1992.
- ◆ The Building Regulations 1992, up to, and including October 2004 Amendment.

Concluding statement

9.1 In the opinion of BEAL, The Elastik Waterproofing Membrane System is fit for purpose and will comply with the NZBC to the extent specified provided that it is used, designed, installed and maintained as set out in this Appraisal Certificate.

9.2 The Appraisal Certificate is issued only to Waterproofing Warehouse Ltd, and is valid until further notification, subject to the conditions of this Appraisal.

Conditions of Appraisal

10.1. This appraisal Certificate:

- a) Relates only to the Elastik Waterproofing Membrane System as described herein;
- b) Must be read, considered and used in full, together with the current version of the technical literature;
- c) Does not address any legislation, regulations, codes or standards, not specifically named herein;
- d) Is copyright of BEAL

10.2 The Appraisal Certificate holder continues to meet the quality requirements of the Waterproofing Warehouse Ltd. Building Product Quality Plan and has the plan audited and Appraisal certificate revalidated by BEAL on an annual basis.

10.3 Waterproofing Warehouse Ltd. shall notify BEAL and obtain approval of any changes of the product specification or quality assurance prior to product being marketed including any trade literature, web site info or the like.

10.4 BEAL makes no representation as to:

- a) The nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
- b) The presence or absence of any patent or similar rights subsisting in the product or any other product;
- c) Any guarantee or warranty offered by the Appraisal Certificate holder.

10.5 BEAL's verification of the building product or system complying with one or more of the above-mentioned criteria is given on the basis that the criteria used were those that were appropriate to demonstrate compliance with the NZBC at the date of this Appraisal Certificate. In the event that the criteria is withdrawn or amended at a later date, this Appraisal may no longer remain valid.

10.6 Any reference in this Appraisal Certificate to any other publication shall be read as a reference to the version of publication specified in this Appraisal Certificate.

Authorised Signatory,



C R Prouse - Director

BEAL (Building Element Assessment Laboratory Limited)
[October 2021]

