



EXPIRES SEPT 2020

BEAL Appraisal Certificate

The ABEP Blue Barrier Liquid Applied Rigid Air Barrier (LARAB) System



Product

1.1 The ABEP Blue Barrier Liquid Applied Rigid Air Barrier system (LARAB) incorporating STPE technology uses solid masonry or a sheet substrate, ply or fibre-cement, or Magnum Board for the construction of wind and moisture resistant substrates or rigid underlays behind cavity based claddings.

1.2 The ABEP LARAB system comprises the Blue Barrier Joint Filler, Liquid Flash, Flash 'N Wrap RG and Liquid Wrap. Use of the ABEP LARAB with other forms of substrate or claddings are outside the scope of this certificate, as specified in the ABEP LARAB Technical Installation Manual (v1.6).

1.3 The ABEP Blue Barrier Liquid Applied Rigid Air Barrier systems is used for the construction of wind and moisture resistant substrates or rigid underlays behind cavity-based claddings.

Building Regulations

2.1 In the opinion of BEAL, the ABEP Blue Barrier Liquid Applied Rigid Air Barrier system if 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 range of Blue Barrier products meet the requirements of Performance B1.3.2. See paragraph 8.1

Clause B2 DURABILITY

Performance B2.3.1(a) 50 years for new or repair work and Performance B2.3.1(b) 15 years where additional protection of a substrate with easy access is sought. The Blue Barrier system meets this requirement. See paragraphs 9.1 - 9.3

Clause E2 EXTERNAL MOISTURE

Performance E2.3.2. Walls featuring the Blue Barrier system contribute to meeting this requirement.

See paragraphs 10.1 - 10.8

Clause F2 HAZARDOUS BUILDING MATERIALS

Performance F2.3.1. The Blue Barrier system meets this requirement and will not present a health hazard to people. See paragraph 11.1

2.5 The ABEP LARAB has been appraised as an **Alternative Solution** in terms of New Zealand Building Code Compliance.

Applicant:



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

Scope and Limitations

3.1 The ABEP LARAB has been appraised for use as a waterproofing membrane for vertical walls within the following scope:

- With building structures designed and constructed to comply with the NZBC; and,
- Over existing coated wall substrates that have been shown to comply with all requirements described in the ABEP LARAB Technical Manual and in particular the inspection and testing requirements where applicable;

3.2 The design and construction of any replacement substructure, 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 ABEP LARAB system shall be installed only by ABEP Ltd. trained and approved applicators.

Technical Literature

4.1 The ABEP LARAB system Technical Literature Ver 1.7 March 2014 must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained within the Technical Literature and scope of this Appraisal Certificate must be followed.

4.2 For a copy of this Technical Literature and any subsequent updates please refer to www.abep.co.nz

Technical Specification

5.1 Materials and accessories supplied by ABEP Ltd. are as follows:

- **Blue Barrier Liquid Wrap 2300**
is a spray applied, fully adhered, permeable, air and moisture building envelope protection membrane. This thin 500 micron, seamless substrate coating can be applied with an approved airless sprayer. Liquid Wrap can be sprayed over surfaces and substrates that have been prepared per the ABEP® Blue Barrier Application Guides.
- **Blue Barrier Liquid Flash 2100**
is an all-purpose, liquid applied flashing used in construction applications to bridge dissimilar materials and to create weather resistant, fully adhered pan membranes in window and door installations. Liquid Flashing can be applied over surfaces and substrates that have been prepared per the ABEP® Blue Barrier Application Guides.
- **Blue Barrier Joint Filler 2200**
is a structural adhesive and detail sealant used to fill voids and seams and to bond dissimilar materials. Joint Filler can be applied to surfaces and substrates that have been prepared per the BEP® Blue Barrier Application Guides. Blue Barrier Joint Filler 2200 is part of the BEP® air and moisture barrier system.

5.2 Refer to the ABEP LARAB Technical Manual for the method of application.

Handling and Storage

5.3 All products must be stored inside, in a well ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions. The membrane products, in the original unopened containers,

have a shelf life of 24 months from date of manufacture.

Design Information

General

6.1 The ABEP LARAB system is used for Window & Door Installation Flashing, Joint & Crack Filling, Building Penetration/Protrusion Sealing and Total Building Envelope Air and Moisture Protection

6.2 Before any application can be carried out, it is essential that a full survey, including a detailed inspection and testing of the intended areas to be waterproofed, is completed as set out in Section 7, and 8 where applicable of the ABEP LARAB Technical Manual.

Adhesion - Clause B1.3.2

7.1 The ABEP LARAB products have exceptional adhesion to a wide range of dry and damp substrates and therefore meet the requirements of clause B1.3.2.

Durability - Clause B2

8.1 The ABEP LARAB products when used in accordance with this Appraisal Certificate and subjected to normal conditions of environment and use, is expected to have a serviceable life of at least 15 or at least 50 years according to the ease of access.

External Moisture—Clause E2

9.1 The application of the ABEP LARAB system to existing walls, shall follow the procedures set out in the Technical Manual, subject to the limits described therein and elsewhere in this appraisal document.

Hazardous Building Materials - Clause F2

10.1 Performance F2.3.1. The ABEP LARAB system when installed according to the requirements of this appraisal and cured meets this requirement and will not present a health hazard to people using the building.

Installation Information

Installation Skill Requirement

11.1 Installation of the ABEP LARAB products must be completed by persons who have experience and knowledge of waterproofing principles.

12.1 Remedial Work

The installation of the ABEP LARAB products over any new substructures or repaired parts of a roof or wall other than very minor repairs, is subject to specific design and outside the scope of the this Appraisal Certificate.

12.2 Health and Safety

The safe use and handling of the coating system and related products are provided in the Technical Literature. The products must be used in conjunction with the relevant materials safety data sheet for each product. Refer to Section 18 of the Technical Literature.

Basis of 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

13.1 The following assessments of the ABEP LARAB system have been undertaken by BEAL:

Review of test data and technical literature supplied by ABEP Ltd.

Tests

14.1 The following testing of the ABEP LARAB system has been undertaken by BEAL to verify compliance:

- Durability by way of UV exposure testing
- Durability by way of adhesion testing to nominated substrates before and after accelerated age conditioning
- Durability by way of tensile and elongation testing before and after accelerated age conditioning
- Durability by way of testing of crack-bridging over cyclic moving cracks
- Assessment of Freeze Thaw resistance
- Bond strength to nominated substrate materials
- Water resistance by way of hydrostatic water resistance

14.2 The above test methods, results and respective laboratory test reports have been assessed by BTS and found satisfactory.

Other Investigations

15.1 An opinion has been given by BEAL of the durability of The ABEP LARAB system based on test data and in-service history.

15.2 The installation of the ABEP LARAB system was also evaluated (including site visits) 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

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

Quality

16.1 The manufacture of the ABEP LARAB system has not been assessed by BEAL, but details regarding the quality and composition of the materials used were obtained by BEAL and found to be satisfactory.

16.2 The quality of materials, components and accessories supplied by ABEP Ltd. is managed through the use of a Building Product Quality Plan.

16.3 The ABEP Ltd. Building Product Quality Plan ensures continuous conformance with the quality requirements from purchase to supply of components.

16.4 ABEP Ltd.'s Building Product Quality Plan is reviewed and audited at least annually by BEAL or appointed agent.

16.5 Designers are responsible for the substructure design, and building contractors are responsible for the

quality of construction of the substructure or new substrate in accordance with the instructions of the substrate manufacturer and this Appraisal Certificate.

16.6 Building owners are responsible for the maintenance of the ABEP LARAB system in accordance with the instructions of ABEP Ltd. and this Appraisal Certificate.

Sources of Information

- 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, July 2011 Amendment.
- Test data and technical literature supplied by the manufacturer in the USA.

Concluding statement

17.1 In the opinion of BEAL, the ABEP LARAB 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.

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



Conditions of Appraisal

1. This appraisal Certificate :
2.
 - a) Relates only to the ABEP LARAB 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
2. The Appraisal Certificate holder continues to meet the quality requirements of the ABEP Ltd. Building Product Quality Plan and has the plan audited and Appraisal certificate revalidated by BEAL on an annual basis.
3. ABEP 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.
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.
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.
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 Testing Services
[October 2019]

