

Appraisal of a Building Product



The Paul Industries Fastwrap® Window Sealing Tape

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General Information

Specific Performances with the NZ Building Code

Clause B2 - Durability

The Paul Industries Fastwrap Window Sealing Tape when used in accordance with this Appraisal will meet Performance B2.3.1(b) 15 years of the New Zealand Building Code.

Clause E2 - External Moisture

The Paul Industries Fastwrap Window Sealing Tape complies with clause

E2.3.2 of the Building Code when installed in accordance with this Appraisal.

In other words, the product as appraised will as part of a cladding system “prevent the penetration of water that could cause undue dampness, or damage to building elements”.



CA904 Completed December 2009
Verification of Clauses B2 and E2
of the New Zealand Building Code



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Description of Product

The Paul Industries Fastwrap Window Sealing Tape is a durable, UV resistant modified bitumen single-sided self-adhesive tape. The tape consists of an outer layer of lead coloured aluminium foil top layer, a bitumen based adhesive layer with a removable peel-off film. Overseas in-service history of the Fastwrap Window Sealing Tape indicates a performance of 15 years with no maintenance required.

Trade Literature

The **Paul Industries Fastwrap Window Sealing Tape Technical Manual dated November 2009** describes the correct method of installation.

Applicant

The applicant is PAUL INDUSTRIES.

Scope & Limitations

The Paul Industries Fastwrap Window Sealing Tape has been appraised as a flexible flashing tape described in Para 9.1.5 (b) of E2/AS1 and used in conjunction with wall wraps complying with Table 23 of E2/AS1.

The tape is to be installed on wall wraps installed on timber framed buildings built to NZS3604 or steel framed buildings to NASH 3405 and may be used in wind zones up to Very High as described in NZS3604.

The installation shall be as described in the **Paul Industries Fastwrap Window Flashing Sealing Tape Brochure dated December 2009** and installed by competent tradesmen.

Detailed Information

Detailed Description

The Paul Industries Fastwrap Window Sealing Tape is supplied in 50mm wide and 150mm wide rolls of 15 lineal metres. It is deemed by BEAL to be an Acceptable Solution in terms of E2/AS1.

FRAMING:

The Paul Industries Fastwrap Window Sealing Tape must be used in conjunction with timber framing and other components of a wall assembly that comply with E2/AS1 or

in place of timber framing with lightweight steel framing that complies with NASH 3405, in all respects except as varied herein, in order to meet the Performances of the Building Code claimed in this Appraisal.

SUBSTRATE:

The Paul Industries Fastwrap Window Sealing Tape is suited for installation over wall wraps that comply with Table 23 of E2/AS1.

ACCESSORIES:

The Fastwrap Window Sealing Tape utilizes may require the use of an adhesion promoter when the product is being installed in cold conditions of less than 10°C, but greater than 5°C.

Storage & Handling

The Paul Industries Fastwrap Window Sealing Tape are supplied in 50mm and 150mm wide rolls x 10m long and are to be protected from the weather by plastic sheeting. Handling of the rolls requires care to prevent damage to the edges.

An Acceptable Solution:

The Paul Industries Fastwrap Window Sealing Tape has been appraised as providing an acceptable solution to the requirements of E2/AS1.

E2/AS1 refers to the acceptable solution contained in the Department of Building and Housing's Compliance Document for New Zealand Building Code Clause E2 'External moisture', Third Edition including Amendments 1 and 2 and Erratum 1.

How to install the product

The product shall be installed as described in the **Paul Industries Fastwrap Window Flashing Sealing Tape Brochure dated December 2009**.

Basis of Appraisal

[BEAL use the Compliance Verification Procedure to demonstrate compliance with the relevant clauses of the NZ Building Code based on a risk-analysis procedure.]

B2 - Durability

For assessing the durability of the Fastwrap Window Sealing Tape, the

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following testing of Durability properties was carried out:

- QUV testing for resistance to limited weather exposure by way of testing as per ASTM G154 (in place of S4.4 of AC148)
- Peel adhesion testing to typical wall wraps
- Tear resistance
- Tensile strength

E2 - External Moisture

For assessing the weathertightness of the Fastwrap Window Sealing Tape, the following testing of Weathertightness was carried out:

- the self-sealability of the tape
- hydrostatic water pressure resistance.

The Fastwrap Window Sealing Tape was also evaluated in practical building situations to assess the following:

- Ease of installing the system
- Potential risks of non performance when being installed
- Any external factors that could affect the quality of the installed product
- The impact of other building products /systems when in contact
- Comparison with other similar Products.

These assessments and tests demonstrated compliance with the requirements of Clause E2 (External Moisture) of the NZ Building Code.

Product QA Information

- The overseas manufactured tape is produced to an in-house standard.

Design Considerations

Owner/Builder to supply and fit:

- Substrate Construction and appropriate wall wrap in accordance with E2/AS1 or NASH 3405.

Installer* to supply and fit:

- The nominated adhesion promoter where conditions are below 10°C and above 5°C—if required
- the Fastwrap Window Sealing Tape

* the installer may be the owner/ builder or other nominated tradesperson who has read the Fastwrap Window Sealing Tape Technical Information and understands the correct method of installation.



Verification of Compliance

Methods Used

- Testing and assessment by a laboratory or testing facility (BEAL)
- In service history of the membrane system - over 15 years in Asia.

This appraisal uses the in service history provided by the applicant for the product, together with BEAL Procedure 103, The Compliance Verification Procedure – a method for demonstrating Compliance with the performance requirements of the NZ Building Code - as the 'methods' for demonstrating compliance with the relevant clauses of the Building Code. [Methods suggested by the Department of Building and Housing]

The following documentation was consulted:

- New Zealand Building Code
- Acceptable Solutions E2/AS1
- ICBO Acceptance Criteria AC 148
- BEAL Test Report TR090609 - Nail sealability on timber
- BEAL Test Report TR 090723D - Hydrostatic water resistance
- BEAL Test Report TR090723E - Peel adhesion on wall wraps
- BEAL Test Report TR090723F - Tear resistance
- BEAL Test Report TR090724A - Tensile strength
- BEAL Test Report TR090931 - Nail sealability on typical wall wraps
- BEAL Test Report TR091104 - Resistance to UV by way of ASTM G154
- An assessment for ease of use carried out by BEAL.
- Technical and trade literature provided by the manufacturer.

For information about AS/NZS Test Methods, refer to www.standards.co.nz

For information about Test Methods developed by BEAL for this product, contact Paul Industries.



Conditions of this Appraisal

1. The Products continue to comply with the quality assurance measures of PAUL INDUSTRIES. These quality assurance measures have been viewed and approved by BEAL.
2. The products comply with the conditions of this appraisal and with the Paul Industries Fastwrap Window Sealing Tape Technical Manual.
3. PAUL INDUSTRIES continues to have the product range reviewed and their Building Product Quality Plan audited annually by BEAL.
4. The overall quality and performance of the products are maintained.
5. PAUL INDUSTRIES shall notify BEAL of any changes in specification or quality assurance measures prior to them coming into effect.
6. BEAL staff use New Zealand or appropriate international Standards or a BQI Interim Performance Standard (in the absence of a relevant New Zealand Standard) for carrying out testing and assessments. The evaluation of products is performed either at BEAL's facilities or at a nominated laboratory and carried out by experienced and qualified specialists.
7. The system has been tested against one or more of the following criteria which was applicable at the time of the appraisal:
 - a measurable criteria described in the Building Code, or
 - a relevant New Zealand or Australian Standard, or
 - an appropriate requirement set out in a New Zealand Department of Building & Housing document, or
 - a requirement set out in a Building Quality Institute "Interim Performance Standard"
8. BEAL's verification of the building product or system complying with one or more abovementioned criteria is given on the basis that the criteria used were those that were appropriate to demonstrate compliance with the Building Code at the date of this appraisal. In the event that the criteria are withdrawn or amended at a later date, this Appraisal may no longer remain valid.
9. This appraisal will be reviewed within four years. In the event that there are changes, this appraisal will no longer be valid.

Authorised Signatory -



20 November 2009

C R Prouse - Director

Date of Issue

BEAL's new approval logo is the assurance that a building product complies with the requirements of the New Zealand Building Code.

Using the latest in Australasian and overseas testing and assessment methods and criteria, BEAL's logo is a sign of confidence -

- ◆ Confidence for the architect or designer that the product literature and details will meet their specific needs;
- ◆ Confidence for the Building Certifying Authority that the product has been evaluated in a rigorous manner to demonstrate or otherwise, compliance with the relevant Clauses of the NZ Building Code;
- ◆ Confidence for the builder and installer that the Technical Manuals are clear and easy to understand.

BEAL's new 'Approval Logo' is being promoted throughout the building industry thus ensuring maximum exposure for all products that carry this logo. For further information contact Colin Prouse at BEAL on (+64) 4 233 6661 or e-mail at sales@beal.co.nz



Contact Details



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The distributor of the 'Fastwrap' Window Sealing Tape is Paul Industries.

Paul Industries, a division of Judea Holdings Ltd. can be contacted at:

Head Office 07 578 8209

Fax 07 928 5244

E-mail paul@paulindustries.co.nz

Web site www.paulindustries.co.nz

Sales and technical enquires to Paul Bishop



BEAL can be contacted at:

Head Office 04 233 6661

Fax 04 233 6662

E-mail sales@beal.co.nz

Web Site <http://www.beal.co.nz>

Further information about this Appraisal can be directed to the Principal Building Scientist for BEAL Testing Services.