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# **Assessment Brief**

CMA-CM40125 **MASONS Plastabrick Ltd** 9A Parkhead Place Albany, Auckland 0632 NEW ZEALAND Phone: 64 3 455 1502 www.mpb.co.nz



# **HYDRO Flashing Tape**



The company named above has been awarded a CodeMark<sup>™</sup> Certificate and this Assessment Brief for the product described herein. The product has been assessed by CMI as being fit for its intended use provided it is installed, used and maintained as set out in related documents, including this Assessment Brief.

	25/02/15	25/02/2015	
John Thorpe	Date of Issue	Date of Issue	
CertMark International Pty Ltd	Assessment Brief	Original Certificate	

#### Scope & Summary of Assessment Brief

The MASONS HYDRO Flashing Tape Window Flashing System is a modified bituminous flexible flashing tape system for use around framed joinery openings as a secondary weather resistant barrier. The system may be used with both Timber and Metal framed buildings

#### **Assessment Brief Includes:**

- Factors relating to compliance with building regulations, where applicable.
- Factors relating to additional non-regulatory information, where applicable.
- Independently verified technical specifications.
- Assessment criteria and technical investigations.
- Design considerations.
- Installation guidance.
- Regular surveillance of production.
- Formal three yearly review

#### Notes:

i) The inclusion of the reference to the NZBC is aimed at assisting those involved in the design; specifying and building approval/permit process readers of this Assessment Brief must relate this document to the relevant Performance Requirements of the NZBC.

ii) Any changes made to the NZBC will be reviewed during the term of validity of this Assessment Brief and, where necessary, any amendment required will be published.

### 1. Basis of this Assessment Brief

CMI has assessed the following aspects in the undertaking of the CodeMark<sup>™</sup> certification of the subject and the generation of this assessment brief:

- Physical Properties
- Relation to relevant NZBC clauses
- The ability of the installation details to meet the requirements of the NZBC and relevant New Zealand Standards.

Note: This certification is an Alternative Solution in terms of New Zealand Building Code compliance

# 2. Regulations

#### Complies with the New Zealand Building Code:

- 1. Clause B2 DURABILITY: Performance B2.3.1 (b), 15 years and B2.3.2.
- 2. Clause E2 EXTERNAL MOISTURE: Performance E2.3.2
- 3. Clause F2 HAZARDOUS UILDING MATERIALS: Performance F2.3.1

### Subject to the following Conditions & Limitations:

- a. Ensure all surfaces to which MASONS HYDRO Flashing Tape is applied are clean, dry and free of dust.
- b. When applying MASONS HYDRO Flashing Tape to Light Organic Solvent Preservation (LOSP) treated timber, ensure the solvent has been allowed to flash off prior to installing the product. It is suggested that a minimum of one (1) week is allowed for.
- c. MASONS HYDRO Flashing Tape when used, installed and maintained in accordance with the requirements outlined in Hydro technical data sheet February 2015 and meets the requirements of Acceptable Solution E2/AS1, Clause 9.1.5 (b) (i).
- d. Only to be installed by a suitable licenced tradesperson.
- e. This certification relates only the clauses of the NZBC as contained herein. Consequently any clause not included on this certificate are outside the scope of this Certificate. Excluded clauses are to be addressed at an individual project basis.
- f. This certification relates only to the MASONS HYDRO Flashing Tape that is described above and has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective.

For further information contact the certificate holder.

# 3. Description

3.1 The MASONS HYDRO Flashing Tape is a flexible flashing system for use around window and door joinery openings for buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/ AS1, Table 2; and,
- with wall cladding systems complying with NZBC Acceptable Solution E2/AS1; and,

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- with flexible wall underlays compatible with the flashing tape; and,
- situated in NZS 3604 Wind Zones up to, and including, 'Extra High'

3.2 When used in conjunction with window and door joinery openings for steel framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, with regards to building height and floor plan area; and,
- constructed with steel framing complying with the NZBC; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/ AS1, Table 2; and,
- with wall cladding systems covered by a valid CMI Report that specifies a flexible flashing system; and,
- with flexible wall underlays compatible with the flashing tape and steel frame; and,
- situated in NZS 3604 Wind Zones up to, and including, 'Extra High'

### 4. General

4.1 The MASONS HYDRO Flashing Tape meets the requirements of ICC-ES Acceptance Criteria AC148: 2001 which is an alternative solution to the version of AC148 referenced by NZBC Acceptable Solution E2/AS1 Paragraph 9.1.5(b). The installation method for MASONS HYDRO Flashing Tape Window Flashing System is an alternative solution to the installation method shown within NZBC Acceptable Solution E2/AS1, Figures 72(a) and 72(b). 7.2 The use of flexible flashing systems around window and door joinery openings is critical to assist the overall Weather tightness performance of window and door joinery installations.

4.2 The MASONS HYDRO Flashing Tape is suitable for use over flexible wall underlays compatible with the flashing tape in NZS 3604 Wind Zones up to and including Extra High. In the Extra High Wind Zone, the flexible underlay must be installed over a rigid underlay complying with NZBC Acceptable Solution E2/AS1, Table 23.

4.3 The MASONS HYDRO Flashing Tape is designed to prevent air leakage and water penetration around window and door openings at framing junctions (e.g. at the sill trimmer and opening stud junction), and to keep any water that gets past the cladding, or through the joinery, from direct contact with the framing timber.

4.4 The MASONS HYDRO Flashing Tape is not designed to overcome poor detailing and workmanship of the window or door joinery installation. The system must not be considered in isolation, but be considered as part of the wall cladding system. The MASONS HYDRO Flashing Tape Window Flashing System is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.

4.5 When the MASONS HYDRO Flashing Tape is used in conjunction with Light Organic Solvent Preservative (LOSP) treated timber, the solvent from the timber treatment must be allowed to evaporate prior to the installation of the system.

# 5. Durability

Assessment of durability to meet the NZBC is based on difficulty of access and replacement, and the ability to detect failure of the MASONS HYDRO Flashing Tape Window Flashing System both during normal use and maintenance of the building.

# 6. Service Life

Provided it is not exposed to the weather or ultra-violet light for a total of more than 30 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, the MASONS HYDRO Flashing Tape Window Flashing System is expected to have a serviceable life equal to that of the cladding.

#### 7. Fire

The MASONS HYDRO Flashing Tape must be separated from fireplaces, heating appliances, chimneys and flues in accordance with the requirements of NZBC Acceptable Solutions C/AS1 to C/AS6, Paragraph 7.5.9 for the protection of combustible materials.

#### 8. Installation

8.1 Window Sill Installation Instructions:		
	<b>Corner Guard</b> option 1 Place the <i>MASONS Corner Guard</i> over the building wrap and into the <b>bottom</b> corners of the window or door sill, staple to the jamb. With steel frames use double sided tape to attach the <i>Corner Guard</i> to the metal.	
A CONTRACTOR	<b>Corner Guard</b> <i>option 2</i> Cut a 150mm square of MASONS Hydro Flashing Tape into two equal triangular pieces. Install these at the <b>bottom</b> corners of the frame opening. The triangle needs to reach 40mm in from the extreme end of the window sill. With the remainder overlapping the building paper.	
	<b>Sill Guard</b> Install sill tape flush with the interior face of the opening. Apply along entire length of sill, continue up each jamb with a minimum of 200mm IMPORTANT: Press tape firmly into the corner over the Corner Guard first, then fold around onto the frame face.	

	Fold remainder MASONS HYDRO Flashing Tape against outer face of frame/building. Smooth out all creases & press firmly for good adhesion.
8.2 Window Head Installation	
200	<b>Lintel Piece</b> Install Lintel pieces on top corners of opening, 200mm along the lintel and 200mm down the jamb. Slit at each corner & fold onto outer face of building wrap (at least 50mm).
	<b>Butterflies</b> To create a seal at corner junction, Install butterflies at 45° across the corner of head/jamb.
8.3 Window Head Flashing Ir	istallation:
2x 75mm x 150mm pieces Cutting Diagram	Apply MASONS Hydro Flashing Tape <i>t</i> o top of window head flashing, up-stand & building wrap. Refer to window & cladding details for specific application.

- 8.4 Installation of the MASONS HYDRO Flashing Tape must be completed by tradespersons with an understanding of flexible flashing tape systems, in accordance with instructions given within the MASONS HYDRO Flashing Tape Technical Literature and this Report.
- 8.5 Wall underlay system used in conjunction with the MASONS HYDRO Flashing Tape must be installed in accordance with the manufacturer's instructions, and must completely cover all joinery opening. The underlay is then cut on a 45° angle away from each corner of the opening so the flaps can be folded into the opening and secured to the interior face of the timber framing.

- 8.6 Fit a MASONS HYDRO Flashing Tape Plastic Corner Guard into each of the bottom corners to create a seal at the corner junction. The corner guard must be fixed to the framing with staples, clouts or double sided tape.
- 8.7 Before the MASONS HYDRO Flashing Tape is applied, the substrate surfaces must be clean, dry and free from any surface contaminants such as dust and grease that may cause loss of adhesion.
- 8.8 A length of MASONS HYDRO Flashing Tape must be cut to the length of the sill plus 400 mm. The tape is installed flush with the interior face of the opening and is applied along the entire length of the sill and 200 mm up each jamb. The overhanging tape is cut at the corner of the opening to allow the tape to be folded onto the face of the wall underlay. Ensure that adequate adhesion of the tape is achieved and that the tape is installed tight into the sill/jamb junction.
- 8.9 A 400 mm length of MASONS HYDRO Flashing Tape must be installed 200 mm down the jamb and 200 mm along the lintel at each of the top corners of the window or door joinery opening. A 50 mm wide x 100 mm long sealing tape 'butterfly' must be installed at 45° across the corner of the head/jamb junction overlapping the corner to create a seal at the corner junction.
- 8.10 MASONS HYDRO Flashing Tape must not be stretched. To avoid wastage, the tape can be lapped 100 mm minimum onto itself without reducing the performance of the MASONS HYDRO Flashing Tape.
- 8.11 If the MASONS HYDRO Flashing Tape is exposed to the weather or UV light for more than 30 days, then it must be replaced with new material.
- 8.12 The MASONS HYDRO Flashing Tape must not be installed at temperatures of less than 5°C, however care is required to ensure adhesion is still able to be achieved when the temperature is less than 10°C.

### 9. Inspections:

CMI representatives have inspected installations of the systems and found the level of performance satisfactory.

#### **10. Investigations**

- An assessment was made of the durability of the MASONS HYDRO Flashing Tape by CMI technical experts.
- Site inspections were carried out by CMI to examine the practicability of installation.
- The Technical Literature has been reviewed by CMI and found to be satisfactory.

# 11. Quality

1. The manufacture of the MASONS HYDRO Flashing Tape is done in accordance with ISO10005 and ISO9001 Requirements.

- 2. The quality of supply to the market is subject to annual audit by CMI however the responsibility
- 3. Of maintaining the audited quality and performance of the subject is the responsibility of MASONS Plastabrick Ltd.
- 4. Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and wall underlays in accordance with the instructions of the designer.
- 5. The quality of installation, handling and storage on site is the responsibility of the installer in accordance with the instructions of MASONS Plastabrick Ltd.

### 12. Maintenance

No maintenance is required for the MASONS HYDRO Flashing Tape. Regular checks, at least annually, must be made of the junctions between the joinery and wall cladding to ensure that they are maintained weather tight and that the primary means of weather resistance for the junction e.g. flashing, sealant, etc continues to perform its function, to ensure that water will not penetrate the cladding

## **13. Sources of Information**

- ICC Evaluation Service, Inc, AC148 Acceptable Criteria for Flexible Flashing Materials, February 2011.
- NZS 3604: 2011 Timber-framed buildings.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 (Amendment 5, 1 August 2011).
- New Zealand Building Code Handbook Department of Building and Housing, Third Edition (Amendment 12, 10 October 2011).
- The New Zealand Building Regulations 1992
- Building (Product Certification) Regulations 2008

# 14. Withdrawal

This Assessment Brief will be withdrawn or amended if CMI considers that a change in any documentation, design or manufacturing quality renders the basis of the Certification or Assessment Brief invalid, or if reported field experience convinces CMI of unsatisfactory quality or performance.

# 15. Validity of the opinion

15.1 This Assessment Brief applies only to MASONS Hydro Flashing Tape as certified under the CodeMark certificate CMA-CM40125

15.2 Product certification (CodeMark) is a voluntary scheme that provides an easily-understood and robust way to show that a building product or system meets the requirements of the New Zealand Building Code.

15.3 A CodeMark-certified product or construction method must be accepted by any building consent authority as complying with the Building Code, as long as it is used as specified. Achieving CodeMark is of particular

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#### 15.4 Withdrawal:

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#### 15.5 Term of Validity:

This Assessment Brief will lapse three years after the date of issue unless revalidation has been requested and granted.

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#### **16. Relevant Documents**

- ICC Evaluation Service, Inc, AC148 Acceptable Criteria for Flexible Flashing Materials, February 2011.
- NZS 3604: 2011 Timber-framed buildings.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 (Amendment 5, 1 August 2011).
- New Zealand Building Code Handbook Department of Building and Housing, Third Edition (Amendment 12, 10 October 2011).
- The New Zealand Building Regulations 1992
- Building (Product Certification) Regulations 2008

### 17. Bases of Assessment Brief

CMI has assessed the following aspects in undertaking of the CMI<sup>™</sup> Certification in generating this Assessment Brief:

Installation procedures.

Physical properties.

Relation to relevant NZBC clauses.

The ability of the installation details to meet the requirements of the NZBC and relevant New Zealand and International Standards.

### **18. Conditions & Limitations**

This Assessment Brief:

- Relates only to the product/system that is named and described on the front page.
- Is granted only to the company, firm or person named on the front page no other company, firm or person may hold or claim any entitlement to this Assessment Brief.
- Is valid only within New Zealand.
- Has to be read, considered and used as a whole document it may be misleading and will be incomplete to be selective.
- Is copyright of CMI.

References in this Assessment Brief to any Act of Parliament, Statutory Instrument, Directive or Regulation of the New Zealand Government, New Zealand, or International Standard, Code of Practice, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Assessment Brief.

This Assessment Brief will remain valid for three years provided that the product/system and the manufacture and/or fabrication including all related and relevant processes thereof:

- Are maintained at or above the levels which have been assessed and found to be satisfactory by CMI.
- Continue to be checked as and when deemed appropriate by CMI under arrangements that it will determine.
- Are reviewed by CMI as and when it considers appropriate.

In granting this Assessment Brief, CMI is not responsible for:

- The presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system.
- The right of the Certificate holder to manufacture, supply, install, maintain or market the product/system.
- Individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation.
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

Any information relating to the manufacture, supply, installation, use and maintenance of this product/system which is contained or referred to in this Assessment Brief is the minimum required to be met when the product/system is manufactured, supplied, installed, used and maintained. It does not purport in any way to restate the requirements of relevant WHS 2012 requirements or Safe Work Australia, or of any other statutory, common law or other duty which may exist at the date of this Assessment Brief; nor is conformity with such information to be taken as satisfying the requirements of the WHS 2012 Act or of any statutory, common law or other duty of care. In granting this Assessment Brief, CMI does not accept responsibility to any person or body for any loss or damage, including personal injury, arising.

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