

# NCC 2019 Condensation Management – How To Interpret the Change

## **BREAKING DOWN THE CLAUSE**

March 2019



# NCC 2019 Condensation Management Part (a)

The National Construction Code 2019 Volume Two has introduced a new section titled 'Condensation Management' that will include a clause called 3.8.7.2 Pliable building membrane. The new clause can be broken down into two parts, (a) and (b).

## What is a Pliable building membrane?

Before interpreting this clause, it is necessary to understand that the NCC 2019 Definitions appendix states that Pliable building membrane means a water barrier as classified by AS/NZS 4200.1.

**Pliable building membrane** means a water barrier as classified by AS/NZS 4200.1.

## How To Interpret Clause 3.8.7.2 Part (a)

Clause 3.8.7.2 (a) states that when a water barrier membrane is installed in an external wall; it must be vapour permeable in BCA Climate Zone 6, 7 & 8. Additionally, water barrier membranes must be installed in accordance with AS 4200.2 in all BCA Climate Zones.

### 3.8.7.2 Pliable building membrane

- (a) Where a *pliable building membrane* is installed in an *external wall*, it must—
- (i) comply with AS/NZS 4200.1; and
  - (ii) be installed in accordance with AS 4200.2; and
  - (iii) be a vapour permeable membrane for *climate zones* 6, 7 and 8; and
  - (iv) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building.

## How to Comply with Clause 3.8.7.2 Part (a)

Compliance with this clause is achieved with the installation of a membrane as follows: (i) classified as a water barrier in accordance with AS/NZS4200.1; (ii) installed in accordance with AS4200.2 in all climate zones; and (iii) vapour permeable in climate zones 6/7/8.

### Bradford Product Solutions for 3.8.7.2 Part (a)

BCA Climate Zone 1 to 5: Brick Veneer Only – Thermoseal Wall Wrap

BCA Climate Zone 2 to 8: Brick Veneer and/or Lightweight Clad – Enviroseal RW

See over the page for more detail on these products.



# NCC 2019 Condensation Management Part (b)

## How To Interpret Clause 3.8.7.2 Part (b)

Clause 3.8.7.2 (b) states that where a water barrier membrane is not installed, there must be a drained cavity.

(b) Except for single skin masonry or single skin concrete, where a *pliable building membrane* is not installed in an *external wall*, the primary *water control layer* must be separated from *water sensitive materials* by a drained cavity.

## How to Comply with Clause 3.8.7.2 Part (b)

To comply with this clause there must be a drained cavity when no water barrier membrane is installed. As standard Brick Veneer construction includes a drained cavity by design, all Brick Veneer walls automatically comply when no water barrier membrane is installed.

However, external moisture ingress can be influenced by wind pressure and easily breach a drainage cavity to come into contact with water sensitive materials. The use of a water barrier membrane with an appropriate level of permeability is always recommended, particularly if the membrane is being used during construction to allow internal works to progress as part of a reverse build program.

### Bradford Product Solutions for 3.8.7.2 (b)

As Clause 3.8.7.2 has been written to specifically apply to water barrier membranes, part (b) of the clause may be interpreted that a non-water barrier or 'perforated breather foil' defined by the NCC 2019 as a sarking-type material or reflective insulation may still be installed.

It should be noted that perforated foil products do not provide water hold-out or air control and CSR Bradford highly recommends the use of Enviroseal RW vapour permeable products in all construction to provide high water hold-out, air and vapour control to minimise risk of condensation.

BCA Climate Zones 2 to 8: Brick Veneer Only – Thermoseal Wall Breather

See over the page for more detail on this product.

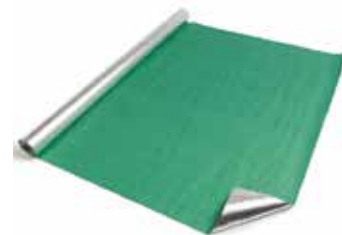
# Thermoseal Wall Wrap

Bradford Thermoseal Wall Wrap is a tough weather barrier with high water hold out that provides additional weather protection for the external frame and insulation. Thermoseal Wall Wrap is considered a pliable building membrane that can be installed behind Brick Veneer in BCA Climate Zones 1 to 5 when complying with NCC 2019 clause 3.8.7.2 (a).

**BCA CLIMATE ZONES 1 - 5**

**CONSTRUCTION TYPE: BRICK VENEER ONLY**

PRODUCT NAME	WIDTH (mm)	LENGTH (m)	M <sup>2</sup> PER ROLL	WEIGHT	PRODUCT CODE
Wall Wrap	1350	30	40.5	6.6	40483
Wall Wrap	1350	60	81	13	15128
Wall Wrap	1500	30	45	7.4	40514



# Enviroseal RW

Bradford Enviroseal RW is a true vapour permeable wall wrap that combines high water hold out properties with high permeability to minimise risk of condensation in the wall envelope. It also minimises air flow that enters the home through the drained cavity improving energy efficiency and building durability. Enviroseal RW is considered a pliable building membrane that can be installed behind Brick Veneer and Lightweight Clad in BCA Climate Zones 2 to 8 and complies with NCC 2019 clause 3.8.7.2 (a).

**BCA CLIMATE ZONES 2 - 8**

**CONSTRUCTION TYPE: BRICK VENEER AND LIGHTWEIGHT CLAD**

PRODUCT NAME	WIDTH (mm)	LENGTH (m)	M <sup>2</sup> PER ROLL	WEIGHT	PRODUCT CODE
Enviroseal RW	1500	30	45	4.6	167641
Enviroseal RW	1500	50	75	7.9	118153
Enviroseal RW-IT*	1500	50	75	7.9	165532
Enviroseal RW	2750	25	68.75	8.5	138628
Enviroseal RW	3000	25	75	9.5	155884



\*RW-IT is a variant of RW that includes integrated tape release liners

# Thermoseal Wall Breather

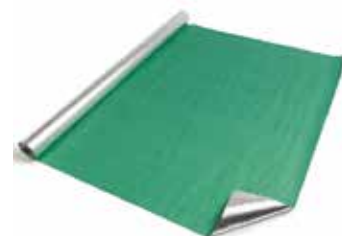
Wall Breather is a non-water barrier perforated foil wall wrap that can be installed behind Brick Veneer as a sarking-type material or reflective insulation when complying with NCC 2019 clause 3.8.7.2 (b). Further advice should be taken from your local building surveyor to confirm that a non water barrier sarking complies to the intent of Condensation Management objectives for your state.

**Note:** Perforated foil products do not provide water hold out or provide air control. In BCA Climate Zones 7 & 8 in conjunction with R2.5 and R2.7 batts perforated foil is not recommended for condensation control. Bradford highly recommends the use of Enviroseal RW vapour permeable products in Brick Veneer construction for water hold out, and air/vapour control to minimise risk of condensation.

**BCA CLIMATE ZONES 2 - 8**

**CONSTRUCTION TYPE: BRICK VENEER ONLY**

PRODUCT NAME	WIDTH (mm)	LENGTH (m)	M <sup>2</sup> PER ROLL	WEIGHT	PRODUCT CODE
Wall Breather	1350	30	40.5	6.6	101254
Wall Breather	1350	60	81	13	15123
Wall Breather	1500	30	45	7.4	154446



**Note:** Always check with the cladding manufacturers warranty before use



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