

CERTIFICATE NO. 08/0298

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FrameTX[®] Breather Membrane

System de revetment Dachbelagsystem

The **Irish Agrément Board** is designated by Government to issue European Technical Approvals.

Irish Agrément Board Certificates establish proof that the certified products are '**proper materials**' suitable for their intended use under Irish site conditions, and in accordance with the **Building Regulations 1997 to 2007**.

The **Irish Agrément Board** operates in association with the **National Standards Authority of Ireland (NSAI)** as the National Member of UEAtc.

PRODUCT DESCRIPTION:

This Certificate relates to FrameTX[®] Breather Membrane for use in timber frame construction either factory or site applied. FrameTX[®] is manufactured by extruding polypropylene to produce filaments which are bonded together.

This Certificate certifies compliance with the requirements of the Building Regulations 1997 to 2007.



and FrameTX[®] are registered trademarks of Don & Low Ltd.

USE:

FrameTX[®] is suitable for timber frame constructions either factory or site applied. The product is water resistant and is used to prevent water passing to the timber structure. It is water vapour permeable thus allowing the timber structure to breathe.

Any vapour which enters the wall construction from inside can pass into the wall cavity where it can be removed by air movement or condense and drain safely away. A vapour control layer must be utilised on the internal structure of the building.

FrameTX[®] must be fitted with the approved fixing nails or stainless steel staples with the minimum vertical and horizontal laps.

MANUFACTURE & MARKETING:

The product is manufactured and marketed by:

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1.1 ASSESSMENT

In the opinion of the Irish Agrément Board (IAB), FrameTX[®] Breather Membrane, when used in accordance with this Certificate, can meet the requirements of the Building Regulations 1997 to 2007, as indicated in Section 1.2 of this Irish Agrément Certificate.

1.2 BUILDING REGULATIONS 1997 to 2007

REQUIREMENT:

Part D – Materials and Workmanship

D3 – FrameTX[®], as certified in this Certificate, is comprised of 'proper materials' fit for their intended use (see Part 4 of this Certificate).

D1 – FrameTX[®], as certified in this Certificate, meets the requirements of the building regulations for workmanship.

Part B – Fire Safety

B2 – Internal Fire Spread (Linings)

FrameTX[®] installed in accordance with this Certificate may be used on the internal surfaces of buildings to meet this requirement.

B3 – Internal Fire Spread (Structure)

FrameTX[®] installed in accordance with this Certificate will not adversely affect the control of fire and smoke within concealed spaces in the structure of fabric of a properly designed building.

B4 – External Fire Spread

FrameTX[®] will not prejudice the external fire resistance of the wall, as indicated in Section 4.1 of this Certificate.

Part C – Site Preparation and Resistance to Moisture

C4 – Resistance to Weather and Ground Moisture

FrameTX[®] meets the requirements when installed in accordance with this Certificate.

Part L – Conservation of Fuel and Energy

L1 – Conservation of Fuel and Energy

Based on the measured vapour resistance of FrameTX[®], walls incorporating insulation can meet this requirement.

2.1 PRODUCT DESCRIPTION

FrameTX[®] Breather Membrane is manufactured by extruding polypropylene to produce filaments. These filaments are laid down as a fabric and bonded together using a combination of heat and pressure in a continuous process. The nominal characteristics are shown in Table 1.

	Value/Units
Width	2.7 m
Length	100 m*
Thickness	0.5 mm
Weight	100 g/m ²

* Other roll sizes are available to order

Table 1: Nominal Characteristics

2.1.1 Ancillary Products

- Stainless steel staples or nails
- Adhesive HDPE tape
- PVC Banding tape

2.2 QUALITY CONTROL

Quality control checks are carried out on the incoming raw materials, during production and on the finished product. These checks include visual inspection and checks on dimensions (length, width), weight, tensile strength, elongation, and tear resistance.

2.3 DELIVERY, STORAGE AND MARKING

FrameTX[®] is supplied in rolls and delivered to site individually wrapped in polythene. A technical leaflet bearing the product name, IAB logo and Certificate number, is included with each roll or available on request. Labels with lot identifiers are attached to each roll for traceability.

Rolls should be stored on a flat level, smooth, clean, dry surface and be kept under cover to protect from long-term exposure to UV light. Care must be taken to avoid contact with solvents and with materials containing volatile organic components such as coal tar, and timbers newly treated with solvent based preservative (creosote). Reasonable precautions must be taken in handling the rolls to prevent damage, such as tears or perforations, occurring before and during installation, and prior to the application of the roof covering.

The rolls must not be exposed to a naked flame or other ignition source.

2.4 INSTALLATION

2.4.1 General

FrameTX[®] must be installed in accordance with the manufacturer's instructions and the recommendations given in this Certificate.

2.4.2 Installation Procedure

FrameTX[®] must be secured with austenitic stainless steel nails or staples at max 500mm centres.

Upper layers should always overlap lower layers to facilitate the easier shedding of rain and water away from the sheeting material.

Horizontal joints should overlap by 100mm minimum. Vertical joints should overlap by 150mm minimum and be staggered or offset wherever possible.

Allow for sufficient overlap at the bottom of panels to ensure that the bottom timbers and sole plates are well covered. FrameTX[®] should extend at least 50mm below the top of the rising wall.

At window sills a dpc should be folded on-site to provide protection for the bottom, back and ends of the sill. A layer of FrameTX[®] should be folded over and inwards to cover all timber cavity barriers.

Both vertical and horizontal proprietary polythene sleeved cavity barriers should be fitted in front of FrameTX[®] according to the manufacturer's instructions.

All stud positions must be marked to facilitate fixing of wall ties.

Should any damage occur through mishap or vandalism, these areas should be repaired or replaced before the final outer cladding is applied, ensuring that the laps are maintained and that the upper sheets overlap the lower ones.

Cavity barriers in accordance with Section 3 of the TGD to Part B of the Building Regulations 1997 to 2007 must be installed after the installation of FrameTX[®].

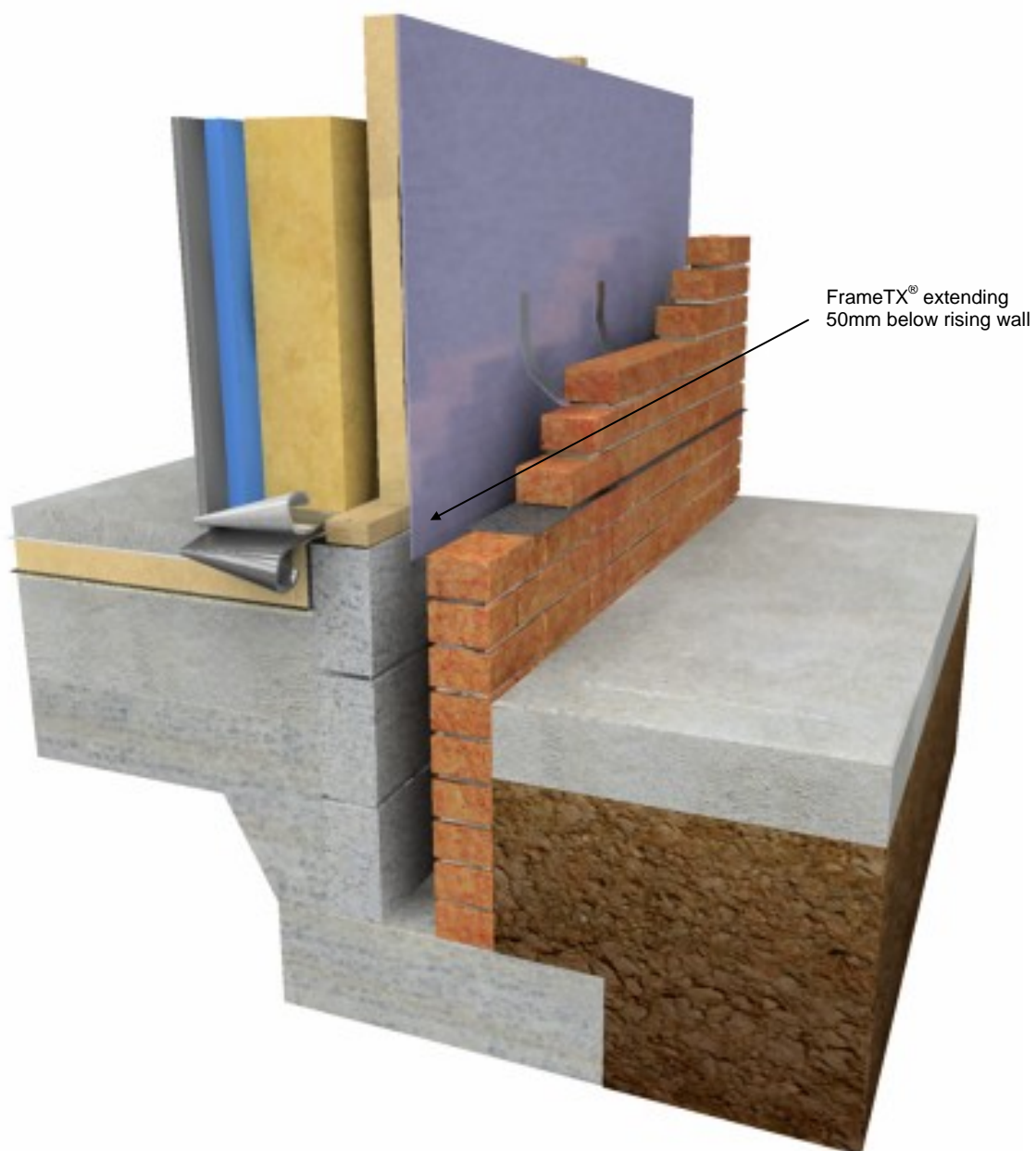


Figure 1: Foundation Level

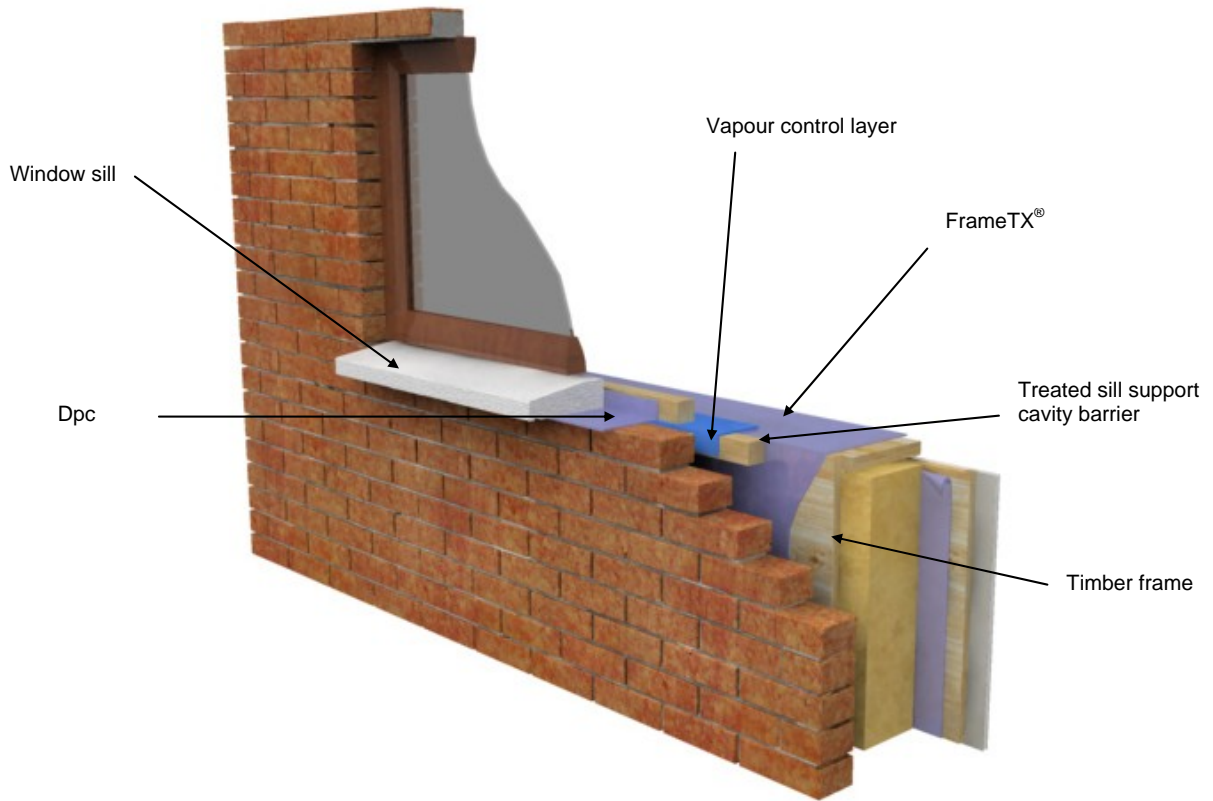


Figure 2: Window Sill Detail

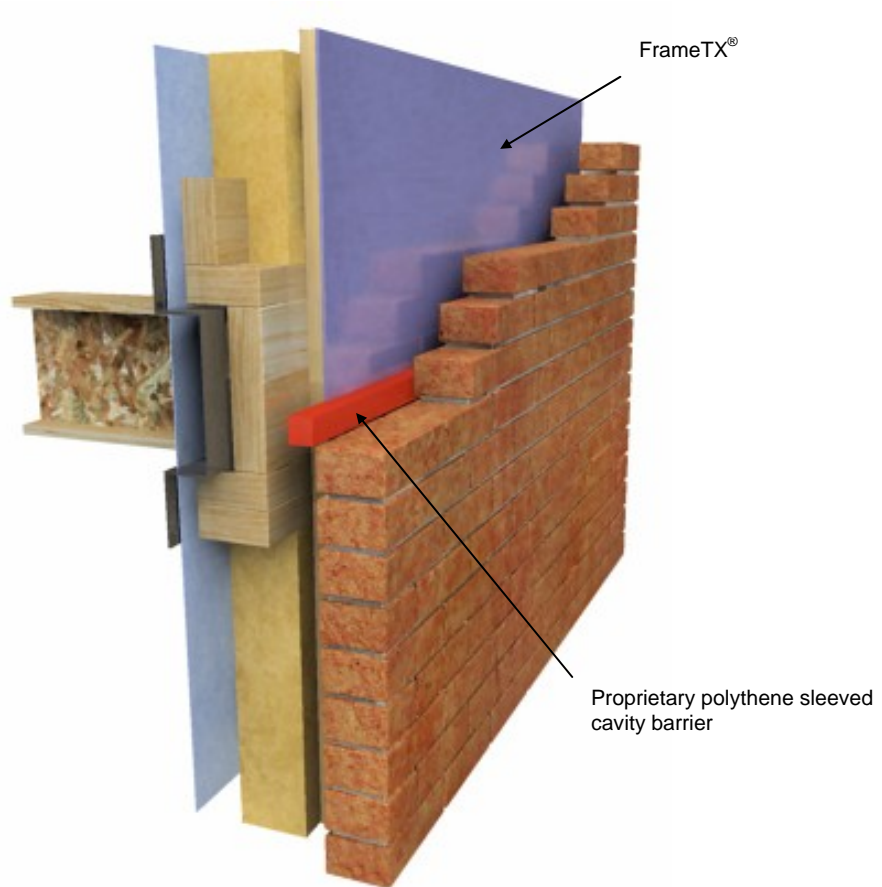


Figure 3: Cavity Barrier Detail

3.1 GENERAL

FrameTX[®] Breather Membrane is suitable for timber frame constructions, either in the factory or on-site installation.

3.2 STRENGTH

FrameTX[®] will resist the loads associated with the installation of the membrane onto a timber frame stud wall.

Suitable timber frame constructions are defined as those designed and built in accordance with the relevant parts of BS 5268-1:1996 *Structural use of timber*.

The membrane may be damaged by high winds, careless handling or by vandalism and should not be left uncovered for longer than is absolutely necessary. Any damaged areas should be repaired or replaced before the final outer cladding is applied.

3.3 WEATHERTIGHTNESS

Tests confirm that FrameTX[®] will resist the passage of water, wind-blown snow and dust into the interior of a building under all conditions to be found in a wall constructed to BS 5268-1:1996 and BS 8000-6:1990 *Code of practice for slating and tiling of roofs and claddings*.

Care must be taken to ensure that all timber in the cavity is covered by the membrane including the base timbers.

Particular attention should be given to ensure that adequate ventilation is provided and drainage to wall cavities must be catered for in accordance with the Building Regulations 1997 to 2007.

4.1 BEHAVIOUR IN FIRE

FrameTX[®] Breather Membrane has similar properties in relation to fire to other polyolefinic sheets, tending to melt and shrink away from a heat source, but it will burn in the presence of an ignition source. FrameTX[®] is therefore unclassifiable in terms of the Building Regulations 1997 to 2007.

Cavity barriers must be provided as indicated in Part 3.3 of TGD to Part B of the Building Regulations 1997 to 2007.

Toxicity – Negligible when used in a wall construction situation.

4.2 WATER VAPOUR PENETRATION AND CONDENSATION RISK

The risk of condensation occurring within the wall of a timber frame building will depend upon the properties and vapour resistance of other materials used in the construction, the internal and external conditions and the effectiveness of the internal vapour barrier.

FrameTX[®] has a water vapour permeability of 2600g/m²/day and a water vapour resistance of less than 0.08 MNs/g.

The general design guides contained in BS 5250:1989 *Code of practice for control of condensation in buildings* must be met when installing this product.

4.3 DURABILITY AND MAINTENANCE

FrameTX[®] when installed in accordance with this Certificate, manufacturer's instructions and relevant codes of practice, is virtually unaffected by conditions normally found in a timber frame wall and will have a design life comparable with other elements of construction and in accordance with BS 7543:1992 *Guide to the durability of building elements, products and components*. However, the membrane like most similar materials must be protected from sunlight, flame and solvents.

4.4 TESTS AND ASSESSMENTS WERE CARRIED OUT TO DETERMINE THE FOLLOWING:

- Water vapour resistance
- Water vapour permeability
- Tensile strength
- Elongation at break
- Nail tear resistance
- Dimensional accuracy

	Method	Result
Mullen burst strength (kN/m ²)	BS 3137	514
Tensile strength (N/mm)	BS 2782	MD 7.5 CD 5.4
Elongation at break (%)	BS 2782	MD 80.7 CD 96.2
Tear resistance (N)	MOAT 27 5.4.1	MD 115 CD 126

Table 3: Physical Properties

	Result
Water vapour permeability (g/m ² /day)	2600
Water vapour resistance (MNs/g)	0.08

Table 4: Water Vapour Resistance to BS 3177

4.5 OTHER INVESTIGATIONS

- (i) Existing data on product properties in relation to fire, toxicity, environmental impact and the effect on mechanical strength/stability and durability were assessed.
- (ii) The manufacturing process was examined including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.
- (iii) A condensation risk analysis was performed.

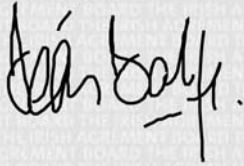
- 5.1** National Standards Authority of Ireland ("NSAI") following consultation with the Irish Agrément Board ("IAB") has assessed the performance and method of installation of the product/process and the quality of the materials used in its manufacture and certifies the product/process to be fit for the use for which it is certified provided that it is manufactured, installed, used and maintained in accordance with the descriptions and specifications set out in this Certificate and in accordance with the manufacturer's instructions and usual trade practice. This Certificate shall remain valid for five years from date of issue so long as:
- (a) the specification of the product is unchanged.
 - (b) the Building Regulations 1997 to 2007 and any other regulation or standard applicable to the product/process, its use or installation remains unchanged.
 - (c) the product continues to be assessed for the quality of its manufacture and marking by NSAI.
 - (d) no new information becomes available which in the opinion of the NSAI, would preclude the granting of the Certificate.
 - (e) the product or process continues to be manufactured, installed, used and maintained in accordance with the description, specifications and safety recommendations set out in this certificate.
 - (f) the registration and/or surveillance fees due to IAB are paid.
- 5.2** The IAB mark and certification number may only be used on or in relation to product/processes in respect of which a valid Certificate exists. If the Certificate becomes invalid the Certificate holder must not use the IAB mark and certification number and must remove them from the products already marked.
- 5.3** In granting Certification, the NSAI makes no representation as to;
- (a) the absence or presence of patent rights subsisting in the product/process; or
 - (b) the legal right of the Certificate holder to market, install or maintain the product/process; or
 - (c) whether individual products have been manufactured or installed by the Certificate holder in accordance with the descriptions and specifications set out in this Certificate.
- 5.4** This Certificate does not comprise installation instructions and does not replace the manufacturer's directions or any professional or trade advice relating to use and installation which may be appropriate.
- 5.5** Any recommendations contained in this Certificate relating to the safe use of the certified product/process are preconditions to the validity of the Certificate. However the NSAI does not certify that the manufacture or installation of the certified product or process in accordance with the descriptions and specifications set out in this Certificate will satisfy the requirements of the Safety, Health and Welfare at Work Act 2005, or of any other current or future common law duty of care owed by the manufacturer or by the Certificate holder.
- 5.6** The NSAI is not responsible to any person or body for loss or damage including personal injury arising as a direct or indirect result of the use of this product or process.
- 5.7** Where reference is made in this Certificate to any Act of the Oireachtas, Regulation made thereunder, Statutory Instrument, Code of Practice, National Standards manufacturer's instructions, or similar publication, it shall be construed as reference to such publication in the form in which it is in force at the date of this Certification.

The Irish Agrément Board

This Certificate No. **08/0298** is accordingly granted by the NSAI to **Don & Low Ltd. Nonwovens** on behalf of The Irish Agrément Board.

Date of Issue: **January 2008**

Signed



Seán Balfe
Director of the Irish Agrément Board

Readers may check that the status of this Certificate has not changed by contacting the Irish Agrément Board, NSAI, Glasnevin, Dublin 9, Ireland. Telephone: (01) 807 3800. Fax: (01) 807 3842. www.n sai.ie