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OUR PRIDE



# Unitex Base Board® Non-Cavity System **Technical Manual**



# Unitex Base Board® Non-Cavity System Technical Manual

This Technical Manual describes installing Unitex Base Board® Non-Cavity System onto a breathable Building Wrap covered frame.

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### BCA Compliant Cladding

Within the Uni-EIFS® product range, Unitex® offers two CodeMark compliant EIFS product systems to the building industry:

- Unitex Base Board System® for Cavity construction
- Unitex Base Board System® Non-Cavity that is directly fixed to the building frame.

The Unitex Base Board® Cavity System has been appraised by BRANZ [Appraisal No. 758 (2018)].

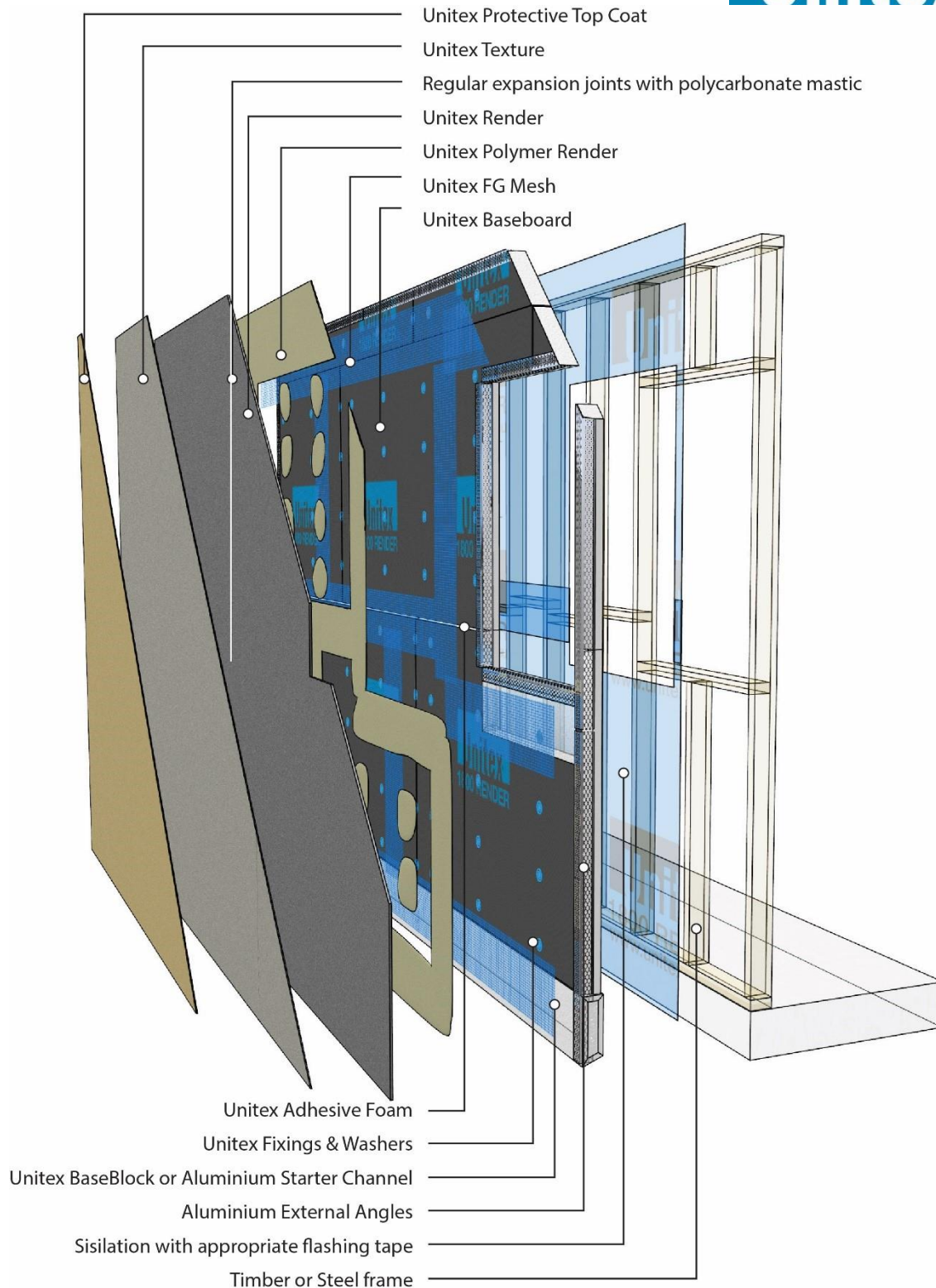
A copy of the Appraisal is available for download from the BRANZ website [www.branz.co.nz](http://www.branz.co.nz) and the Australian Institute of Building Surveyors website

[http://aibs.worldsecuresystems.com/partners/branz\\_appraisals](http://aibs.worldsecuresystems.com/partners/branz_appraisals). Additional supporting information on the material and physical properties of the Unitex Base Board® Non-Cavity System is available by contacting Sto Australia Pty Ltd.



**BRANZ Appraised**

Appraisal No. 758 [2018]



## 1. Introduction

Unitex® is an Australian owned and operated manufacturer and distributor of a wide range of facade wall enhancing building products suitable for both residential and commercial architectural projects. The range includes:

Lightweight Wall Cladding Systems (Uni-EIFS®)

Specialty Renders (Uni Dry Cote®, Unitex® Polymer Render, etc.)

Applied Texture Finishes (Uni Trowel Décor®, Uni Dry Cote®, etc.)

Masonry paints (Uni-PTC®, etc.)

Cement based architectural mouldings and NLB columns (Uni-Shape®)

PUR coated profiles (Tex Moulds)

Accessory product range

Within the Uni-EIFS® product range, Unitex® offers two CodeMark compliant EIFS product systems to the building industry:

- Unitex Base Board System® for Cavity construction
- Unitex Base Board System® Non-Cavity that is directly fixed to the building frame.

The performance requirements for a non-cavity wall or direct fix are different to the requirements for cladded walls with a cavity. Non-cavity or direct fix is where the cladding is attached directly to the sarking covered building frame whereas cavity construction involves cladding separated from the building frame by a gap known as a cavity. With a cavity wall, any water that passes through the primary weather defence of the outer wall will gradually be removed from the cavity either through weep holes or evaporation. A cavity system allows water to enter the cavity implying that drainage solutions are present whereas a non-cavity direct fix system must prevent all water penetrations by the primary weather defence of the exterior wall.

Whilst EIFS with a cavity is a proven solution to the premature rotting of timber frames “leaky buildings” phenomenon that is found in wetter climates such as New Zealand and Canada, there have been few known cases of so-called “leaky buildings” occurring in mainland Australia where drier, low humidity climates prevail. Unitex has supplied and installed Uni-EIFS systems for over 35 years without issue.

### 1.1 Basic Description

Unitex® introduced External Insulation Finishing Systems (EIFS) to the Australian building products market over 35 years ago and has patented, developed and refined the accompanying product systems since 1982. This Manual describes the **Unitex Base Board® Non-Cavity System**, how it is installed as the **exterior cladding for walls**, and what may be expected from it as a building product system for exterior walls of Class 1 and Class 10 Residential as defined in the Natinoal Construction Code (NCC).

Previous Unitex accreditations through ABSAC, CSIRO Appraisals, BRANZ Appraisals, BRAC Certificates and earlier CodeMark Certificates (2012-2017) included Class 2-9 Buildings but more recent regulatory changes restrict the scope to Class 1 and Class 10 Buildings.

**1.2 The Unitex Base Board® Non-Cavity System** is a fully specified system and consists of:

1. **Unitex Breathable Vapour-Permeable Wall Wrap**
2. **Self-adhesive flashing tape for weather-proofing**

3. **Unitex IB-Board Panel or Unitex Base Board®**
4. **Unitex® adhesive expanding foam**
5. **Uni-Screw®/Washer Fixers (Mushrooms)**
6. **Unitex® aluminium Starter Channel and/or Levelling Base Block (BAL 29 & BAL40)**
7. **Aluminium Corner Angles, Aluminium pre-meshed Corner Angles and expansion beads**
8. **Unitex® Polymer Render**
9. **Uni-Mesh® IM 250 or 1 m AR Fibreglass Mesh**
10. **Uni Dry Cote® BBR (Base Board Render)**
11. **Uni-Shape® Polycarbonate Sealant**
12. **Unitex® Applied Texture Finish such as Uni-Trowel Décor®**
13. **Uni-PTC® exterior surface coating**
14. **Primers and Sealants**
15. **Uni-Shape Sill Blocks**

N.B. The use of any generic products instead of the dedicated, specified and listed (1-15 above) components will render the installation non-conforming to the CodeMark Compliance program.

Unitex® offers additional products such as **Unitex®-Cembond** primer and adhesion promoter and Uni-Dry Seal providing surface water pearling. The use of these **optional**, additional products can technically enhance the EIFS wall finishing system.

**Accessories** used with the System which are **supplied by the building contractor** are:

1. Sarking support
2. Flexible sill and jamb flashing tapes
3. Flashings
4. Waterproof membrane tapes
5. Window and door trim air seal
6. Uni-Shape decorative mouldings and profiles

Installation of components and accessories supplied by Sto Australia Pty Ltd. and building contractors must be carried out only by Unitex trained and recommended applicators.

More detailed information on these components is found in Section 3 of this Technical Manual.

## 2. Design Criteria

### 2.1 Installation Design

The only approved method of installing **Uni-Base Board®** and **Uni-IB Board Panel** on-site and building up the **Unitex Base Board® system** is by using and applying Unitex®-supplied components as detailed in Section 3 of this Manual. Compliance with the requirements of your local Building Authority/Building Surveyors is essential.

## 2.2 Concrete slab design

Concrete slabs should be finished with a straight and smooth edge where the sheets are expected to overlap. A rebated slab edge as is normally used for brickwork is well suited for UniBase Board® sheets to be used. The builder will need to provide a smooth and squared rebate for sheet installation and also must consider external doorways. The rebate ought to be waterproofed prior to cladding installation. As is usual, no rebate is required at doorways.

## 2.3 Frame Structure

The frame structure must be built in accordance with the National Construction Code (NCC) and with the relevant Australian Standards such as AS 1684.2:2021 “Timber Frame” and AS 1684.4-2010. **Timber framing** must have a maximum moisture content of 24% at the time of fixing Uni-Base Board or Uni-IB Board panels to the frame. If the moisture content is above 24%, problems may occur at a later date due to excessive timber shrinkage.

In all cases, studs must be at maximum 600 mm centres for wind zones up to and including noncyclonic N4. Nogs must be fitted flush between the studs at maximum 800 mm centres.

The Unitex Base Board Non-Cavity System is suitable for use with Class 1 and Class 10 **steel framed** buildings that have been specifically designed in accordance with AS/NZS 4600-2005 or the NASH Standard for “residential and low-rise steel framing (Part 1) 2005”.

The minimum framing specification is “C” section studs and nogs of overall section size of 75 mm web and 32 mm flange. Steel thickness must be minimum 0.55 mm. In all cases, studs must be at maximum 600 mm centres for wind zones up to and including non-cyclonic N4. Nogs must be fitted flush between the studs at maximum 800 mm centres.



## 2.4 Stud wall design

As Uni-Base Board® sheets and Uni-IB Board Panels are fastened through building wrap (sarking) onto timber or metal studs, spacing of the wall studs needs to be considered in relation to expected wind loads. In normal situations, stud spacing is up to a maximum of 600 mm. In high wind areas this can be reduced to 450 mm and less. Builders should check with local building regulations to determine the appropriate Wind Classification and space the fixers appropriately using information from Table 1 (below). Fixing off-stud is allowed as specified later. In certain cases, extra noggins for back blocking may be required.

Make sure that there is adequate framing around windows and doors to perimeter fix the panels. An extra stud is usually required on internal and external corners so that both internal plasterboard sheets and external Uni-Base Board® sheets can be adequately fixed.

As Uni-Base Board® sheets are 2400mm wide, stud spacing should be an exact division of 2400mm (e.g. 600mm) so that each panel can sit over four studs.

### 2.5 Mass

The mass of the Unitex Base Board Non-Cavity System, both factory coated and site-applied, is approximately 9 kg/m<sup>2</sup>.

### 2.6 Hazardous Building Materials

The Unitex Base Board Non-Cavity System will not present a health hazard to people in normal use.

### 2.7 Wind Pressure Design

The Unitex Base Board® Non-Cavity System is suitable for use in non-cyclonic wind zones up to and including N4. Uni-Base Boards® must be fixed to the wall framing at the maximum centres specified in Table 1.

The test to AS 4040.2-1992 “Methods of Testing Sheet Roof and Wall Cladding, Method 2: Resistance to wind pressures for non-cyclone regions” was carried out on a Test Panel of Unitex Base Board Non-Cavity System with EPS thickness of 75 mm by the independent NATA accredited testing house, Ian Bennie & Associates Pty Ltd on 18<sup>th</sup> October 2018. The observed test result was that the test panel sustained all the loads up to ± 5.0 kPa for periods of 1 minute each. At these pressures, the timber studs were beginning to fail and the test was stopped. Using this test observation, Unitex Base Board Non-Cavity System fulfils the requirements of AS 1562:1-2018 “Design and installation of sheet roof and wall cladding” wherein the cladding system remains substantially in position, notwithstanding any permanent distortion, fracture or damage that might occur in the sheeting or fastenings. See Table 1 for wind classes, stud and fixing centres.

**Table 1. Uni-Base Board® System Fixing Centres for Edges and Intermediate Studs**

| NCC Wind Class | Maximum fixing centres (mm) with studs at maximum 600 mm centres | Maximum fixing centres (mm) with studs at maximum 400 mm centres |
|----------------|------------------------------------------------------------------|------------------------------------------------------------------|
| N2             | 300 <sup>1</sup>                                                 | 300 <sup>1</sup>                                                 |

|    |                  |                  |
|----|------------------|------------------|
| N3 | 300 <sup>1</sup> | 300 <sup>1</sup> |
| N4 | 200 <sup>2</sup> | 300 <sup>1</sup> |

<sup>1</sup> One fixing is required into each noggin and top and bottom plates at mid-nog length.

<sup>2</sup> Fixings are also required into each noggin at 200 mm centres and top and bottom plates at mid-nog length.

The face load resistance of Unitex Base Board® Non-Cavity System installations on buildings situated in BCA Wind Classes outside of non-cyclonic N4 is to be determined by specific engineering design. Please contact Unitex for additional information.

The Unitex® reinforced coating system is the same for all Base Board thicknesses and allows minimum deflection. Unitex® does not approve or support the use of EPS sheets below 50 mm thickness due to potential deflection in installation.

## 2.8 Bushfire Attack Levels (BAL) of Unitex Base Board System

Bushfire resistance performance of the Unitex Base Board System was tested in accordance with AS 1530.8.1:2018 by an accredited testing authority.

The coating system applied to the EPS sheets is critical to the performance as the following table explains:

**Table 2. Results of Bushfire Attack Level testing to AS 1530.8.1:2018 by Exova Warringtonfire**

| Substrate                             | Coating System                                      | Result                     |
|---------------------------------------|-----------------------------------------------------|----------------------------|
| 50, 75, and 100 mm<br>Uni-Base Board® | 8 mm Uni Dry Cote® BBR<br>1 mm Uni-Trowel Decor®    | BAL-29 achieved in testing |
| 50, 75, and 100 mm<br>Uni-Base Board® | 16.5 mm Uni Dry Cote® BBR<br>1 mm Uni-Trowel Decor® | BAL-40 achieved in testing |

These tests were carried out on a test wall with direct fix (non-cavity) Unitex Base Board System® using 75 mm EPS. The accredited external testing authority has given Unitex® an opinion that both BAL-29 and BAL-40 would be achieved for 100 mm EPS. The Test Reports are available from Unitex.

## 2.9 Heating Appliances, Fireplaces, Chimneys and Flues

The Unitex Base Board® Non-Cavity System has not been assessed for construction associated with heating appliances and must not be used as such.

## 2.10 Fire

The Unitex Base Board® Non-Cavity System is suitable for use on exterior walls when positioned a minimum of 900 mm from an allotment boundary (other than the boundary adjoining a road alignment or other public space), and on walls positioned a minimum of 1.8 m from another building on the same allotment.

The fire hazard indices of the Unitex Base Board® Non-Cavity System have been assessed in accordance with AS 1530.3-1999 and are:

**Table 3. Results of Testing to AS/NZS 1530.3:1999 “Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release” on Unitex Base Board Non-Cavity System by CSIRO Materials Science and Engineering.**

|                       |   |
|-----------------------|---|
| Ignitability Index    | 0 |
| Spread of flame index | 0 |
| Heat evolved index    | 0 |
| Smoke developed index | 3 |

## 2.11 Thermal Resistance

BRANZ assessed the Thermal Resistance of the Unitex Base Board® Non-Cavity System in BRANZ Appraisal No. 758 (2018) as follows:

**Table 4. Thermal Resistance R-values for Unitex Base Board® Non-Cavity System from BRANZ Appraisal No. 758 (2018)**

| Grade of Expanded Polystyrene | Assumed k-value @ 23 °C w/m, °C | Thickness (mm) | R-value m <sup>2</sup> °C/w |
|-------------------------------|---------------------------------|----------------|-----------------------------|
| M grade                       | 0.041                           | 50             | 1.71                        |
| SL grade                      | 0.045                           | 75             | 2.16                        |
| SL grade                      | 0.045                           | 100            | 2.71                        |

## 2.12 Weatherproofing

A test panel wall of Unitex Base Board Non-Cavity System (aka Direct Fix) that included all three thicknesses of EPS via 50, 75, and 100 mm, and a 600 mm recess, window, meter box, wall junctions, control joints, parapet and balcony drainage conditions was tested by the independent NATA accredited testing house, Ian Bennie & Associates Pty Ltd on 29<sup>th</sup> August 2018. Unitex Base Board Non-Cavity System passed all the compliance requirements of the NCC-2016 Weatherproofing Verification Methods V2.2.1 and FV1 at the nominated test parameters.

## 2.13 Impact Resistance

The independent NATA accredited testing house, Ian Bennie & Associates Pty Ltd tested a sample of Unitex Base Board Non-Cavity System with 100 mm EPS thickness to AS 4040.5:1996 “Methods of Testing Sheet Roof and Wall Cladding – Method 5: Resistance to Impact (Sandbag) for Wall Boards”. Mass of bag: 25kg. Drop height: 1.0 m. The energy of this impact is 245 Joules. Result: there was no visible indentation or cracking in the cladding after impact. Even though the requirements for the Standard had been met, Unitex requested that the impact test was repeated with increasing drop heights until failure occurred at 2.2 metres and impact energy of 540 Joules.

## 2.14 Durability/Service Life

The Unitex Base Board® Non-Cavity System is expected to have a serviceable life of at least 30 years provided the system is maintained in accordance with this Technical Manual, and the fixings, Unitex Base Boards, renders and texture coatings are continuously protected by a weathertight coating and remain dry in service. Unitex can draw on more than 40 years of experience in installing EIFS cladding.

## 2.15 Acoustic Performance

Composite acoustic ratings for various Uni-Base Board clad wallings are available on request from Unitex. Acoustic opinions were supplied to Unitex by SLR Consulting Australia Pty Ltd.

## 2.16 Maintenance

Regular maintenance is essential to ensure the performance requirements of the BCA are continually met and to ensure the maximum serviceability of the system.

Regular cleaning (at least annually) of the surface coating is required to remove grime, dirt and organic growth and to maximise the life and appearance of the coating. Grime may be removed by brushing with a soft brush, warm water and detergent or a light pressure spray with warm water and detergent. Solvent based cleaners must not be used.

Annual inspections must be made to ensure that all aspects of the cladding system, including the finishing system, base, render, flashings and sealed joints remain in a weatherproof condition. Any cracks, damaged areas or areas showing signs of deterioration which would allow water ingress must be repaired immediately. Sealant, coatings and the like must be repaired in accordance with the instructions of Unitex®. Sealant to be inspected yearly and

when showing signs of gaps or severe deterioration, remove and reseal. Contact Unitex [www.unitex.com.au](http://www.unitex.com.au) for appropriate movement modulus 25% sealant.

### 2.17 Other Design Factors

Residential buildings clad with Unitex Base Board<sup>®</sup> Non-Cavity System are not more than three storeys above ground floor level and/or 8.5 metres of sheer wall above ground level.

An appropriate fire barrier must be installed between the second and third storey, i.e. metal flashing separation and/or a Unitex encapsulated Uni-Shape Base Block as the barrier. All EPS (polystyrene foam) exposed to the elements is fully rendered. As is world practice, both Uni-Base Board and Uni-IB Board Panels are made from fire-retardant EPS. Builders and plumbers working with naked flame, welding, etc., can only be carried out after all outside facing, exposed EPS is render coated. This includes the base of all sheets at ground level and also at roof level.

Unitex<sup>®</sup> specified renders and specified Applied Texture Finishing systems are recommended to be applied only in temperatures above 10°C and below 35°C.

The surface over which Uni-Base Board<sup>®</sup> sheets and Uni-IB Board panels are fixed is true and level within 3 mm tolerance over a 1 metre radius. When using a timber frame, the frame must be constructed in accordance with the Australian Standard AS 1684-2021. The same tolerances can be expected in the finished and coated Unitex Base Board<sup>®</sup> Non-Cavity System.

The surface over which factory coated Uni-Base Board<sup>®</sup> sheets or uncoated Uni-IB Board panels are horizontally fixed with staggered joints is over a frame (timber or steel) pre-wrapped with sarking such as Unitex Breathable Vapour-Permeable Wall Wrap.

Unitex Base Board<sup>®</sup> Non-Cavity System is never to be cleaned, painted or otherwise treated with materials containing hydrocarbon solvents. This requirement applies both during construction and occupancy.

All exposed Uni-Base Board or Uni-IB Board Panel must be coated especially around the base of walls. Should uncoated Uni-Base Board or Uni-IB Board Panel show signs of yellowing due to prolonged exposure to sunlight, it should be replaced and recoated in a short time-frame.

Where the building is required to be protected from subterranean termite attack, a barrier system that complies with the requirements of AS 3660.1-2014 “Termite management – New building work” and is compatible with the building structure incorporating Unitex Base Board<sup>®</sup> Non-Cavity System, shall be used.

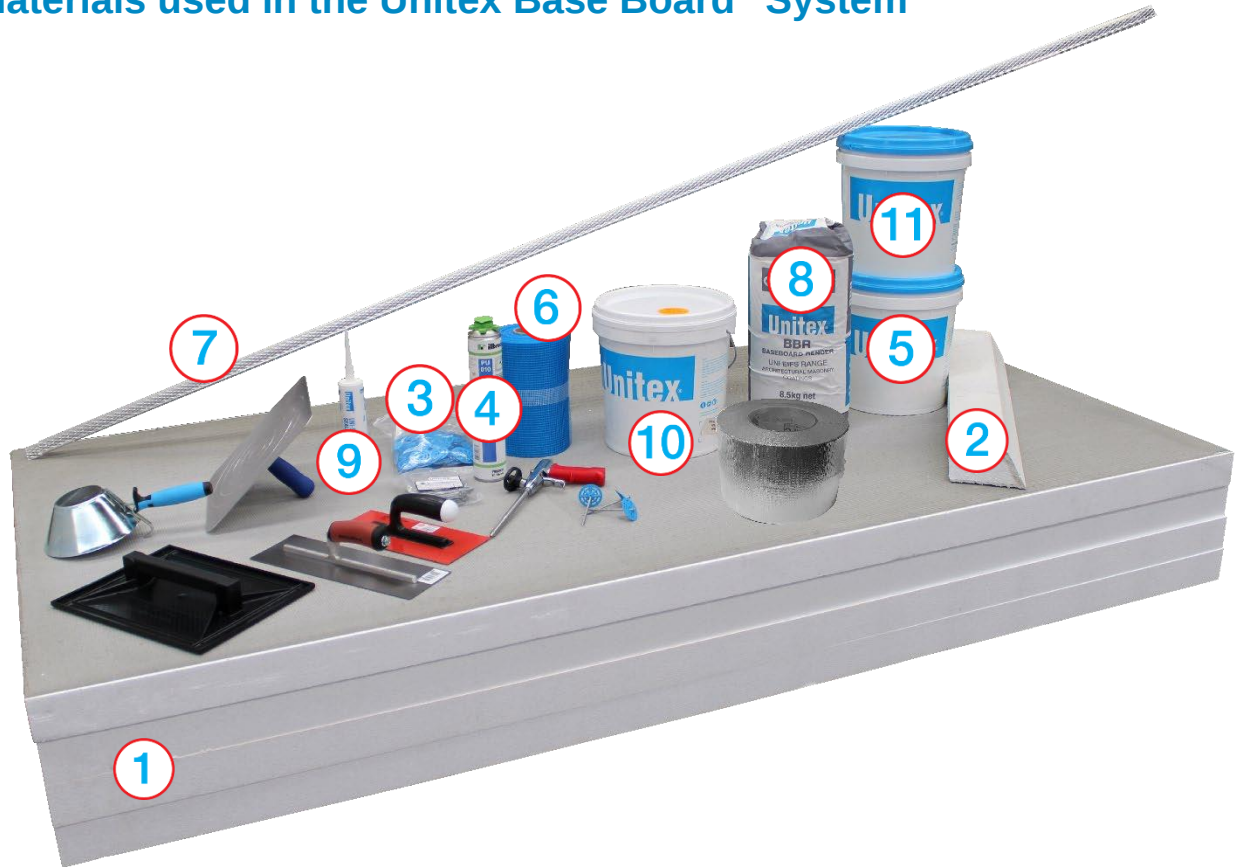
Regular use of expansion / contraction joints is essential.

Cap flashings must project approx. 10 mm past the finished coated surface and kick angle return well down pressing against the finished wall surface to create a drip line away from the

wall. The minimum return dimension should be 50 mm (excluding drip edge) for wind zones N1 and N2, and 70 mm (excluding drip edge) for N3 and N4 to prevent water flow back.

The use of Unitex Base Board® Non-Cavity System in an Alpine environment for resisting snow loadings against the walls has not been tested and is not a recommended use for the System. Please note, for engineer's assessment in this matter, please refer to 2.13 Impact Resistance.

### 3. Materials used in the Unitex Base Board® System



Unitex® supplies all the following materials to be used as components of the Unitex Base Board® System:

1. Uni Base Board®
2. Unitex® Levelling Base Block (or use aluminium starter channel)
3. Uni-Screw®/Washer Fixers (Mushrooms)
4. Unitex® Adhesive Foam
5. Unitex® Polymer Render
6. Uni-Mesh® IM 250
7. Uni-304® Angle
8. Uni Dry Cote® BBR (Base Board Render)
9. Uni-Shape® Sealant
10. Unitex® Applied Texture Finish such as Uni-Trowel Décor®
11. Uni-PTC® exterior surface coating
12. Unitex® Wedge Head Protector

### 3.1 Uni Base Board®

#### 3.1a factory coated Uni-Base Board®

Unitex® manufactures Uni-Base Board® on a dedicated coating line in Dandenong, VIC, Australia. Using flame retardant Expanded Polystyrene (EPS) sheets as a raw material, the boards are meshed, coated and dried. Being cement and resin based, the coating displays excellent adhesion to the EPS sheet, has hard, tough and durable exterior properties combined with the flexibility needed for long term coverage of the EPS sheet. The coating incorporates a layer of alkali resistant fibreglass mesh that adds mechanical impact resistance and strength properties to the coating. The Unitex® developed ribbed surface profile of Uni-Base Board® aids the adhesion of subsequent coats of render to the Base Board and assists applicators in building the render to the specified thickness where optimum performance is found. Each sheet is supplier stamped, dated and batch numbered as part of the Quality System.

Unitex® supply Uni-Base Board® with three thicknesses of EPS:

**Table 5. Range of Uni-Base Board® products in Unitex Base Board® Cavity System**

| Thickness (mm) | Length x Width (mm) | Grade of EPS used | Nominal Density of EPS (kg/m <sup>3</sup> ) |
|----------------|---------------------|-------------------|---------------------------------------------|
| 50             | 2400 x 1200         | M grade           | 19                                          |
| 75             | 2400 x 1200         | SL grade          | 14                                          |
| 100            | 2400 x 1200         | SL grade          | 14                                          |

Uni-Base Board® is an insulating product with thermal resistance (R value) increasing with the thickness of the sheet and the density of the sheet. The insulation sheet is manufactured from fire retardant “SL and M” grade Expanded Polystyrene (EPS) to AS 1366 “Rigid cellular plastics sheets for thermal insulation” Part 3-1992 “Rigid cellular polystyrene-moulded (RC/PS-M)” (Amdt 1 March 1993). The manufacturer regularly tests Cross Breaking Strength and Compressive Strength (mechanical properties) as part of their Quality Assurance. An extra requirement from Unitex® is a minimum bead fusion of 50% for extra strength.

For peace of mind, **Uni-Base Board®** provides the builder/designer with a controlled surface for further application. Additionally, when Uni-Base Boards are installed but not able to be further coated for a prolonged period, the pre-coated face will protect the boards until such time as it is possible to fully complete the coating steps. Using uncoated EPS sheets, such as Uni-IB Boards, it is imperative that coating is prioritized as exposed EPS can degrade in sunlight.



**3.1b Uni-IB Board Panels** are Uni-Base Board® sheets without the factory applied coating on the surface. Using Uni-IB Board Panels, a coating of mesh and cement containing acrylic coating is applied on-site and can achieve the same performance as Unitex Base Board NonCavity System using factory coated Uni-Base Board.

**3.2 Unitex aluminium Starter Channels and Unitex® Levelling Base Blocks** provide a suitable base for laying Uni Base Board® onto. **Unitex aluminium Starter Channels** are edge coated starter supports that both provide a tough, durable, sealed and level edging so that Uni Base Board® sheets are not exposed to the elements and prevents moisture ingress near ground level.

Unitex Levelling Base Blocks are manufactured by Unitex® from lightweight concrete with embedded fibreglass mesh and an SL grade EPS insert and are supplied 2.4 m long and are suitable for BAL-29 and BAL-40 projects.

For non-BAL rated projects, Unitex supplied **Aluminium Starter Channels** are suitable. Both **Unitex® Levelling Base Blocks** and **Aluminium Starter Channels** provide a weather resistant, termite proof barrier to the base of a wall clad with Unitex Base Board® Non-Cavity System.



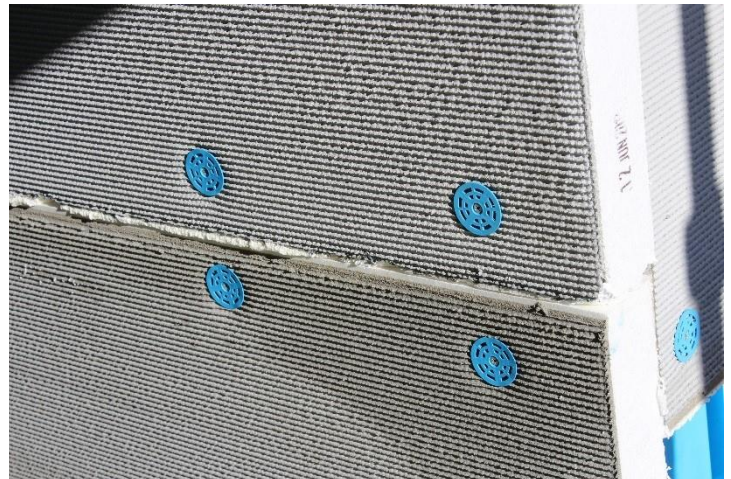
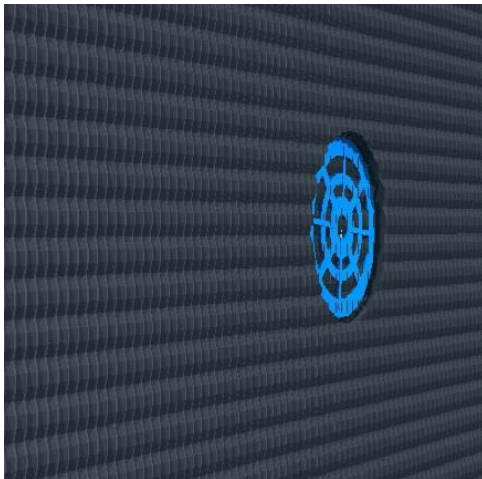
### 3.3 Uni-Screw/Washer Fixers (Mushrooms)

Uni-Base Board or Uni-IB Board Panels must be fixed to wooden frames using steel screws that are 25 mm longer than the thickness of the boards. This allows for screwing through the EPS

sheet, **a pull up of approx. 5 mm into the sheet** and approx. 25-30 mm for penetration into the timber frame. The screws shall be Unitex® supplied and specified corrosion resistant Class 3 screws of 3.55 mm diameter with bugle heads. The coating on each screw shall conform with AS 3566.2 - 2002 Table 2, corrosion resistance Class 3, which can be mechanically plated zinc/tin at a thickness of 25 microns or suitable corrosion inhibited coatings. For installations within 1 km of breaking surf or less than 100 metres from salt water not involving breaking surf, or in heavy industrial areas, either fixing screws that comply with corrosion resistance Class 4 or stainless steel (grades 316 or 316L only) shall be used. In all cases the screws must be fitted with 45-50 mm diameter Unitex® blue HDPE/PP plastic washers that support the EPS sheets to the frame and adhesively lock into the render system. All fixing centres are to be strictly set out as detailed in Table 1 to comply with the specified wind zone.

All cladding fixings shall be screwed so that they sit 5 mm indented into the surface of the sheets.

Self-tapping fasteners also of the same Class 3 corrosion resistant steel with the same lengths are used for steel frames.



**3.4 Uni-Mesh IM 250** is an alkali resistant coated fibreglass mesh that is used as reinforcing mesh embedded in **Unitex® Polymer Render** over uncoated areas of **Uni Base Board®** sheets and along all joints, edgings and corners. IM 250 is mesh with dimensions of nominally 5 mm x 5 mm, a density of 160 g/m<sup>3</sup>, a width of 250 mm and is available in 50 m rolls. The resin content (alkali resistant coating content) is 16 ± 2% and the tensile strength (in N/50 mm) is ≥1200 for warp and ≥1400 for weft.

When using Uni-IB Board panels, the same grade of Alkali Resistant resin coated fibreglass mesh is used in widths of both 1000 mm (IM-1000 grade) and 250 mm (IM-250 grade) as all Uni-IB Board Panel surfaces need to be meshed and coated with Unitex Polymer Resin.

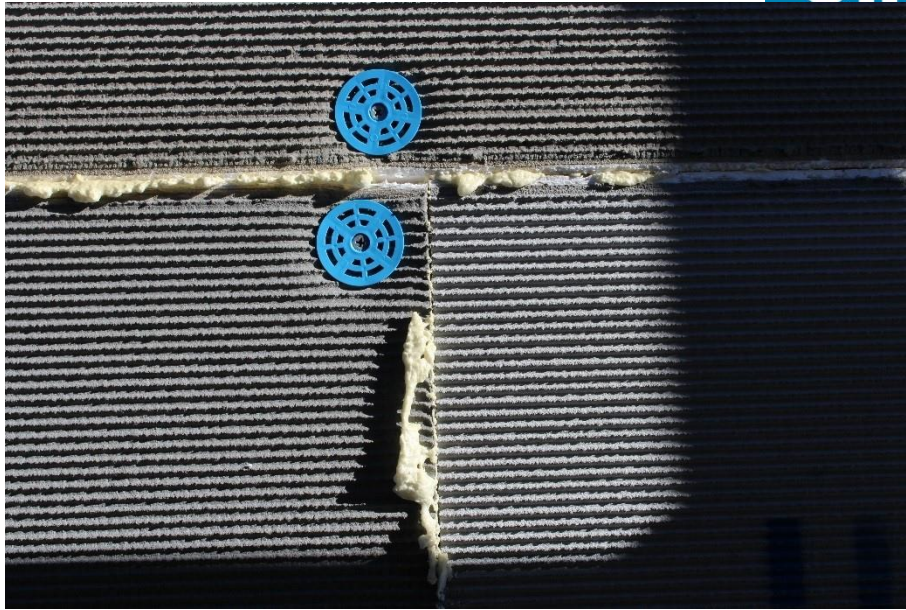


**3.5 Uni-Shape® Sealant** is used to provide a flexible waterproof seal at expansion and control joints, window and door reveals, meter boxes and cable penetrations, etc. **Uni-Shape® Sealant** complies with Type F, Class 25LM of ISO 11600, has a Polycarbonate basis and is durable, of elastic nature and is compatible with Unitex® specialty finishes systems. It can also be painted over with **Uni-PTC®** coating for surface colour uniformity..



**3.6** Unitex® specifies **Uni®- 304 angles** (304 grade stainless steel), **aluminium corner angles**, or **aluminium pre-meshed Corner Angles** that must be installed prior to render application. These angles are corrosion resistant and Unitex® Polymer Render will adhere to them. Prior to render, all corners are reinforced with **Uni-Mesh® IM 250** embedded in **Unitex® Polymer Render**. The Corner Angle Bead is then adhesively fitted into place also with **Unitex® Polymer Render** (plus 5-10% cement added on site). Plastic external corner angle beads are not approved for the **Unitex® Base Board® Cavity System**.

**3.7 Approved Adhesive Foam** is applied between **Uni Base Board®** and **Uni-IB Board** panels sheet to sheet junctions (butt ends). These expanding adhesive foams are of PUR (polyurethane) basis and are compatible with EPS.



**3.8** Recommended renders are: **Unitex® Polymer Render** over uncoated EPS cut edges and **Uni Dry Cote® Base Board Render** over all factory and site-coated EPS sheets.



**Unitex® Polymer Render**, with 5-10% Portland cement added, is the recommended render for covering the entire surface of uncoated Uni-IB Board panels. When using Uni-Base Board® sheets, all meshed areas must be coated such as board ends, meshed corner angles and any fixer/washer heads. Also, the recommended render over uncoated EPS cut edges such as those around window openings, etc. is **Unitex® Polymer Render**.

**Unitex® Polymer Render** is available in 15 litre pails in paste form and is a polymer rich adhesive render product that needs 5-10% cement added prior to use to form a water resistant, strongly adhering, hard and flexible coating that is applied by trowel at typical thicknesses of 3-5 mm.

**Unitex® Polymer Render** is not a primary adhesive and is not to be used for gluing purposes.

Unitex Polymer Render in paste form is a polymer rich adhering render product that needs 5-10 % cement added prior to use to form a water resistant, fast drying, hard and flexible coating that is applied by trowel at typical thicknesses of 3-5 mm.

Forming part of the Unitex Base Board® system, **Uni Dry Cote® Base Board Render** must be applied (by trowel or spray) over factory coated **Uni-Base Board** or site-coated **Uni-IB Board** panels. Unitex manufacture two grades of **Uni Dry Cote Base Board Render**, viz:

- Conventional **Base Board Render 20kg** where the product is packed in 15 litre bags containing 20 kg of render.
- Lightweight **BBR 8.5kg** where only 8.5 kg of product occupies the volume of a 15 litre bag.

**Base Board Render 20kg** is a cement based, polymer modified render containing washed and graded silica sand, a copolymer powder resin and proprietary additives. This product is applied at a 5 mm build.

**BBR 8.5kg** is also cement based but also contains lightweight fillers. Ease of workability and high sag resistance are positive properties for renderers. This grade is suitable at conventional build thicknesses of 5 mm and can also be applied by trowel in a single application at builds up to 15 mm without sagging. Unitex achieved a Bushfire Attack Level of **BAL-40** using **BBR 8.5kg** as the build and levelling render in the Unitex Base Board System.

Unitex **Uni Dry Cote® powder products** are manufactured to stringent quality standards using high quality raw materials, all of which are blended to meet very tight specifications. The Quality System in place at Unitex® is modelled on elements of the ISO 9001 Quality System as adapted for the CodeMark™ Compliance System.

**Uni Dry Cote® Base Board Render** provides the ideal base for the subsequent application of a variety of **Applied Texture Finishes** and top coats.

**3.9 Primers and sealers** can be used to enhance the **Unitex Base Board System**. Primers from Unitex are **Unitex® Cembond** for highly absorbent surfaces or **Unitex® Substrate Sealer** for applying on less absorbent surfaces or in elevated temperatures. These polymer rich liquid products can provide a key for adhesion of **Uni Décor®/Uni Dry Cote®** texture or **Uni-Shape® Sealant** mastics to the render.

**3.10** Unitex specifies that a suitable **Unitex® Applied Texture Finish** must be used that is rolled, trowelled or sprayed over the render. Either **Uni Décor®** decorative texture (coloured or uncoloured) or **Uni Dry Cote®** powder texture finish (white or pre-coloured) can be applied followed by **Uni-PTC®** protective top coat (coloured).

**Unitex Applied Texture Finishes** typically contain carefully selected mineral particles that provide a texture effect, e.g. scratches, fine or coarse surface textured effects, etc. to the surface appearance of the wall. Typical coverage rates for pre-coloured or white Uni Décor

pastes are 16-18 m<sup>2</sup> per pail (15 litres) for fine to medium textures and 6-8 m<sup>2</sup> per pail for heavy grades of textures. With **Uni Dry Cote**<sup>®</sup> textures, typical coverage is 8-10 m<sup>2</sup> per bag.



**3.11 Uni-PTC**<sup>®</sup> is an acrylic based exterior paint that must be used over the Uni Dry Cote

**3.11 Uni-PTC**<sup>®</sup> is an acrylic based exterior paint that must be used over the Uni Dry Cote cement based finishing textures to improve weathertightness and give the desired finish colour and matt look to exterior walls. Unitex recommends one coat of sealer and 2 coats of **Uni-PTC** to be applied over **Uni Décor textures** and **Uni-Cote Dry Powder** textures. In most commercial applications, up to 3 coats may be required.

Whilst recommended to be painted over Uni Décor pigmented acrylic polymer based applied texture finishes, Uni-PTC is optional. To maintain the exterior durability and freshness of the Unitex Base Board System, regular maintenance and re-coating with Uni-PTC every 7-10 years is recommended. Uni-PTC is supplied in 15 litre pails. Paint colours must have a light reflectance value of > 50 % minimum regardless of gloss value.

In most commercial applications, up to 3 coats may be required.

**3.12 Uni-Shape Sill Blocks** are fitted under windows providing rigidity and strength to a vulnerable area as well as directing water away from the window. These are manufactured by Unitex<sup>®</sup> from lightweight concrete with embedded fibreglass mesh and an SL grade EPS insert and are supplied in lengths to suit the window frame. Uni-Shape<sup>®</sup> Sill Blocks are optional but recommended inclusions in the Unitex Base Board<sup>®</sup> Non-Cavity System.

**3.13 Other Components Accessories** used with the System which are **supplied by the building contractor** are:

#### 1. Sarking support

Polypropylene strap for securing the sarking in place and preventing bulging of the bulk insulation into the drainage cavity where cavity battens are installed at greater than 450 mm centres. Note: additional vertical battens may also be installed to provide support.

**2. Flexible sill and jamb flashing tapes**

Flexible flashing tapes complying with ICBO Acceptance Criteria AC148, or flexible flashing tapes covered by a valid BRANZ Appraisal for use around window and door joinery openings.

**3. Flashings**

Including window and door joinery head flashing, parapet cap flashings and horizontal joint flashings. All terminations and junctions must be adequately flashed which are compatible with the Unitex Base Board Cavity System and comply with AS/NZS 2904 - 1995.

**4. Waterproof membrane tapes**

Tapes covered by a valid BRANZ Appraisal for use as waterproofing membranes over tops of plastered parapets, balustrades, fixing blocks and the like.

**5. Window and door trim cavity air seal**

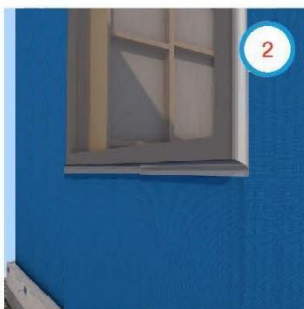
Self-expanding, moisture cure polyurethane foam air seal for use around window, door and other wall penetration openings

## 4. Installation Guidelines

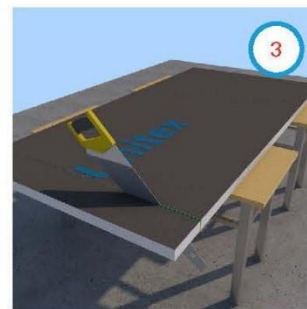
**4.1** This Technical Manual describes installing **Unitex Base Board® Non-Cavity System** onto a breathable building (sarking) wrap covered frame. Whilst the below diagram depicts a Cavity System, the same process, minus the cavity battens, is appropriate for a Non-Cavity System



**Unitex® Levelling Base Block**  
Start by levelling and mechanically fixing the Unitex® Levelling Base Block to a suitable frame with breathable building foil (min. studs 600 mm centres). Use Uni-Screw/Washer Fixers at least 25 mm longer than the thickness of the Unitex® Uni-Base Board™ and fix to the base of the framing. (Non Cavity depicted)



**Seal windows and measure openings**  
Seal windows to wrap with ducting/aluminium tape and apply Uni-Shape Sealant mastic to window frames as required. Where openings (windows and/or doors) penetrate the wall elevation, measure off wall and transfer these measurements to the Unitex® Uni-Base Board™. (Cavity depicted)



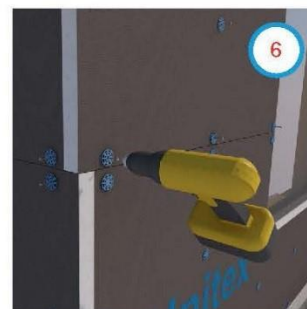
**Cut Uni-Base Board to size**  
It's always a good idea to measure twice and cut once. After measuring the wall and marking-up Unitex® Uni-Base Board™, saw cut to size. Cut either manually or with an electric saw. All waste pieces and saving scrap should be bagged and binned or returned to Unitex for reprocessing.



**Fixing Uni-Base Board**  
Unitex® Uni-Base Board™ should be held securely to the studs of the framing. Install extra blocking and/or noggings if required so that the sheets are held firmly. Use eight (8) Uni-Screw/Washer Fixers per square metre. All sheet to sheet junctions are to fit snugly together with no open gaps.



**Unitex® Uni-Base Board™ to Unitex® Uni-Base Board™ (return edges/sealing)**  
Once the first sheet has been fixed, apply Unitex® Adhesive Foam from a gun to all edges (front half of edge) of the Unitex® Uni-Base Board™ that come in contact with the next installed sheet. Ensure that there are no gaps between the sheets and that sheets are level.



**Laying out Unitex® Uni-Base Board™**  
Stagger all joints as per a common bond brick pattern. At the corners, stagger the sheets, overlap as shown above. Corners may require extra studs for added strength and rigidity. Use extra Uni-Screw/Washer Fixers if required.



**Sealing at windows**  
Apply Uni-Shape Sealant mastic to the rear of Unitex® Uni-Base Board™ adjacent to the window frame around the window. Cut Unitex® Uni-Base Board™ so that it is 5 mm clear of window frame and a minimum of 20 mm free of the frame at the window sill. Cut the window sill on an angle to allow for ~10° slope/fall. Surface mastic sealing (see Diagrams 1A, 1B & 1C) or alternatively pre-made Uni-Shape™ Window Sill Blocks.



**Window and corner protection**  
All windows and corners are to be extra reinforced with Uni-Mesh IM250 (250 mm) patches overlapping into reveals. The fibreglass mesh should return and cover the reveal and can be installed under or over the Uni-304 SS Angle/Alu Angle and into wall face for a minimum 125 mm. (In this case mesh is under the Uni-304 SS Angle/Alu Angle).



**Edge protection for Uni-Base Board**  
(refer to the Unitex® Uni-Base Board™ System Technical Manuals for variations, at [www.unitex.com.au](http://www.unitex.com.au) or [www.render.com.au](http://www.render.com.au)) All Unitex® Uni-Base Board™ edges are to be further protected with the Uni-304 SS Angle/Alu Angle embedded in Unitex® Polymer Render(5% - 10% cement). They must be full lengths from corner to corner and also overlap at the corners.



**Reinforcing mesh to junctions**  
Unitex® Uni-Base Boards™ are supplied pre-meshed so all Unitex® Uni-Base Board™ to Unitex® Uni-Base Board™ junctions are to be like reinforced with Uni-Mesh IM 250 embedded in minimum 2-3 mm Polymer Render + (5% - 10% cement). The mesh should extend 125 mm on each sheet.



**Mixing Uni-Base Board Render**  
(Apply when dry or minimum 24 hours after Unitex® Polymer Render application)  
Unitex® BBR is supplied in approx. 8.5kg bags (Super Light Render). Simply add approximately 4 litres of clean water to a clean 15 litre pail and slowly add Unitex® BBR while drill mixing to form an homogenous mix (free of lumps). The render viscosity should suit a 5-10 mm build coat.



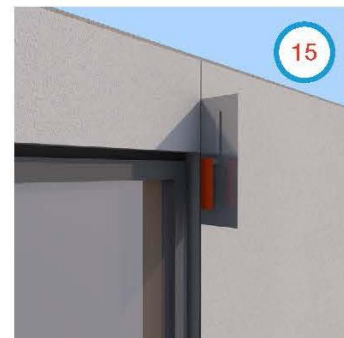
**Applying Unitex® BBR**  
(Use a plastic or foam float/trowel)  
Using a Hawk and Trowel or Render Spray Machine, apply Uni-Base Board Render evenly over the surface to the required depth (normally 5-10mm).  
Note: Unitex® BBR is a medium build product, for a thicker high build system (up to 15+mm) apply a second coat over set Unitex® BBR.



**Floating Unitex® BBR**  
As the Unitex® BBR surface sets, finish level with a plastic float to the exactness required to accept the next coat. Allow to set, dry and cure for 72 hours (min.) before applying a Unitex® Textured Finish. There are many grades and styles of Unitex® Textured Finishes available.



**Unitex® Base Board window reveals**  
Window reveals to be coated to 7.5 mm depth (min). Sills should fall/slope approx. 8-10° to prevent water flowing back. Window sill rubber flap (supplied with window) needs to remain clean, free and intact. Note: Unitex® supplies pre-made Window Sill blocks to simplify this process. Always protect and cover the adjoining surfaces before application.



**Expansion and Control Joints**  
Unitex® Uni-Base Board™ is either direct fix or cavity fix to an existing frame or surface. Expansion and control joints are essential in all Unitex® Uni-Base Board™ Systems and are recommended at a maximum every 6-8m and between floor levels. After internal fit-out extra movement joints may be required.



**Unitex® Textured Finishes over Unitex® Uni-Base Board™.** Apply when fully dry (or min. 72 hours) after Unitex® BBR. Uni-Trowel Décor is an easy to apply textured and pigmented surface applied finish. The Unitex® Uni-Cote range of powder-based Textured Applied Finishes can be used. Note: These must be suitably over-coated with Unitex® Uni-PTC (Or Unitex® Uni-Flex Membrane) pigmented sealing surface finishes (refer to Unitex® Renders and Finishes Manual).



**Proven system – technical back-up**  
Freecall 1800 647 374 and a Unitex technical representative will provide a no obligation quote. Unitex® can recommend an Accredited Installer for you to select.

A Unitex technical representative is on call to visit your site and advise on correct installation, texture and colour, as well as warranty sign off.



**Unitex® Uni-Base Board™ for peace of mind**

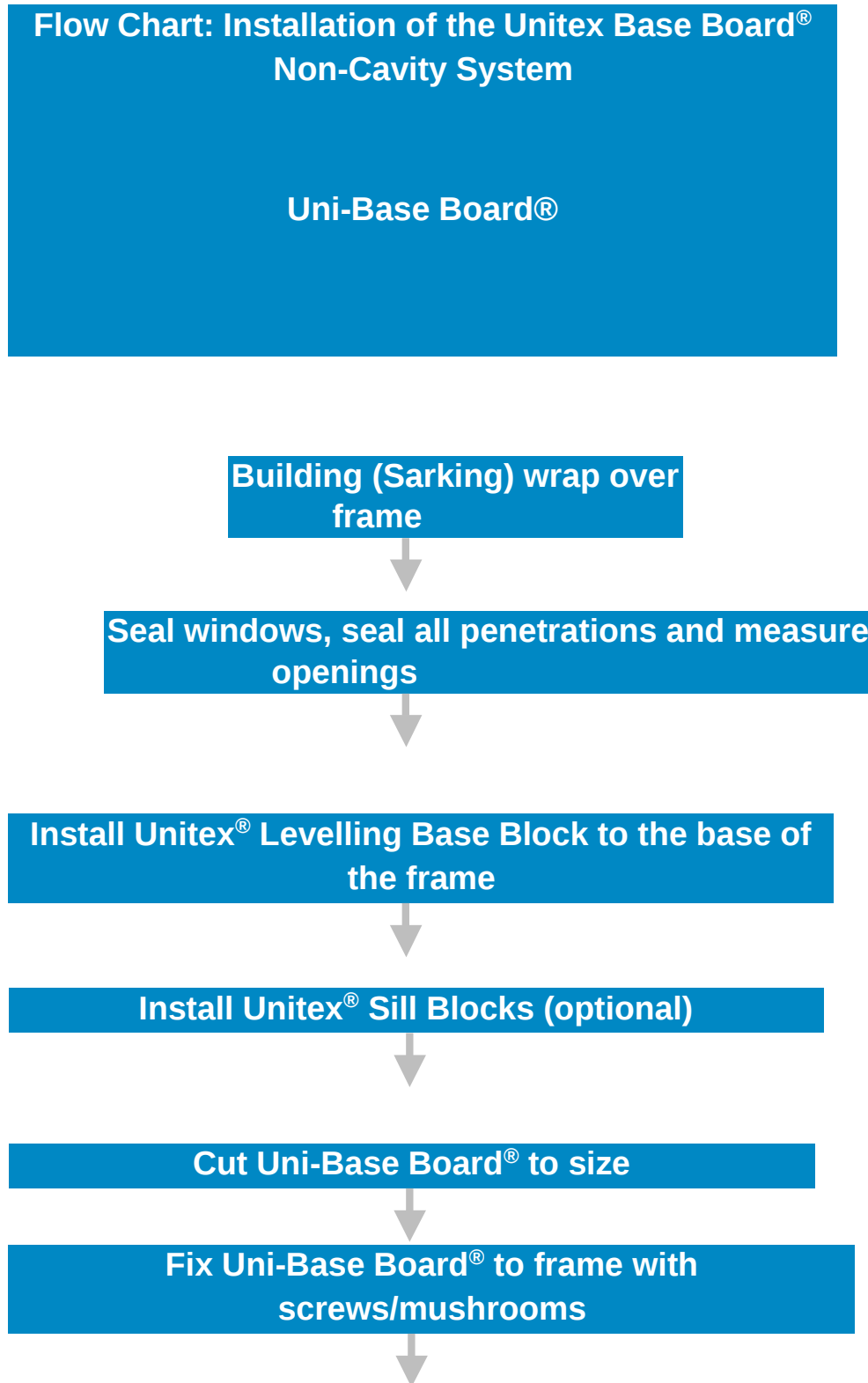
Unitex® Uni-Base Board™ when installed as above (in accordance with the Unitex® Uni-Base Board™ System Cavity and Non-cavity Technical Manuals – available on [www.unitex.com.au](http://www.unitex.com.au), [www.render.com.au](http://www.render.com.au)) is fully accredited via BRAC, BRANZ and CodeMark for your total peace of mind. Unitex® Uni-Base Board™ is quick and easy but does require a team effort:

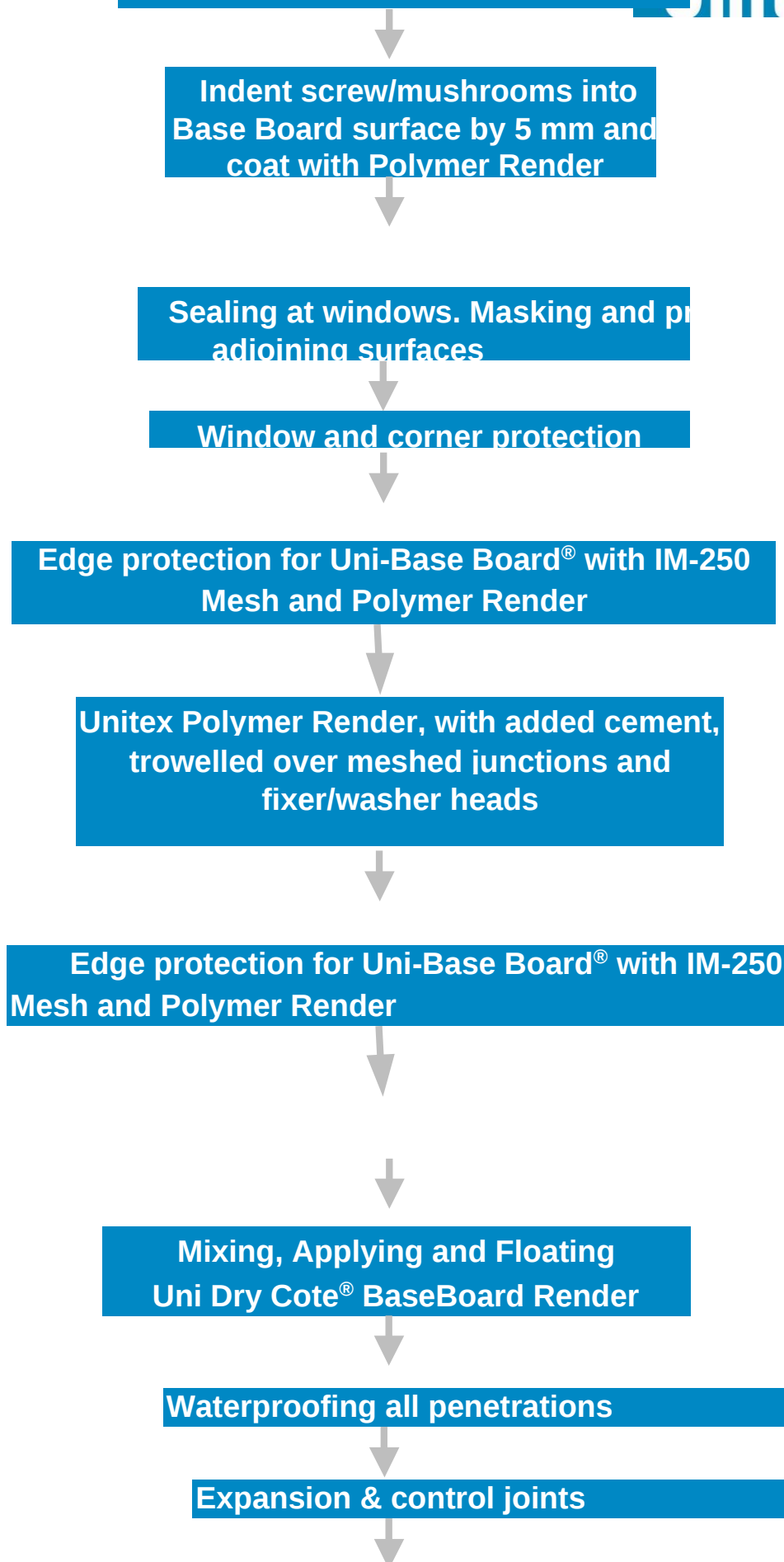
- Quality Substrate (by Builder)
- Accredited highest quality System (Unitex®)
- Experienced Accredited Tradespeople (to install and finish)

When the job is done right, Unitex® backs-up the Unitex® Uni-Base Board™ System with a 7 year warranty.

## Using factory coated and meshed Uni Base Board

**4.1a** Flowchart for installing **Unitex Base Board® Non-Cavity System** onto a breathable building (sarking) wrap covered frame using **factory coated and meshed Uni Base Boards**.





**Apply Unitex<sup>®</sup> texture finishes and Uni-PTC<sup>®</sup> over Uni-Base Board<sup>®</sup>**



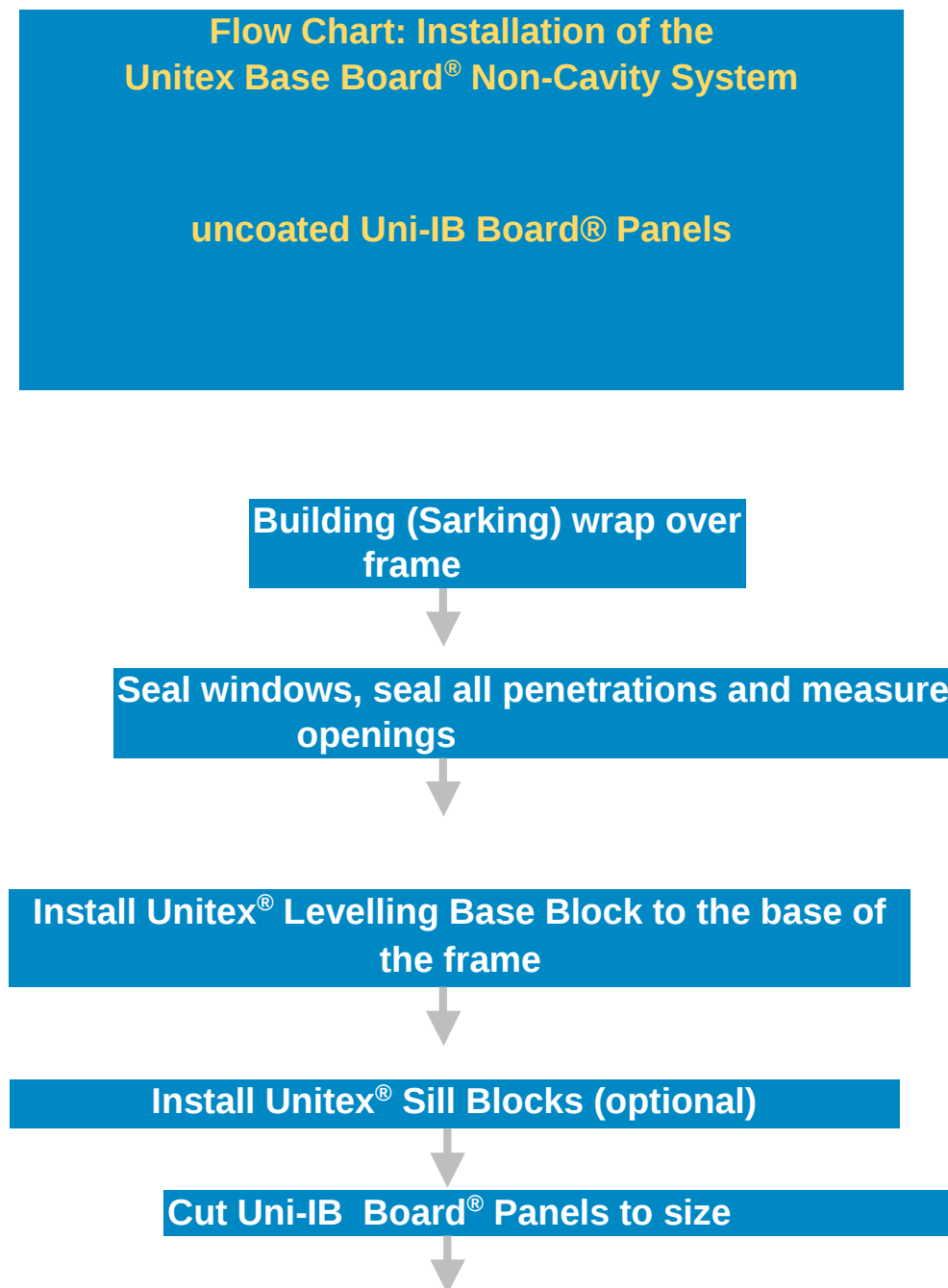
**Unitex Base Board<sup>®</sup> Non-Cavity System has been installed**

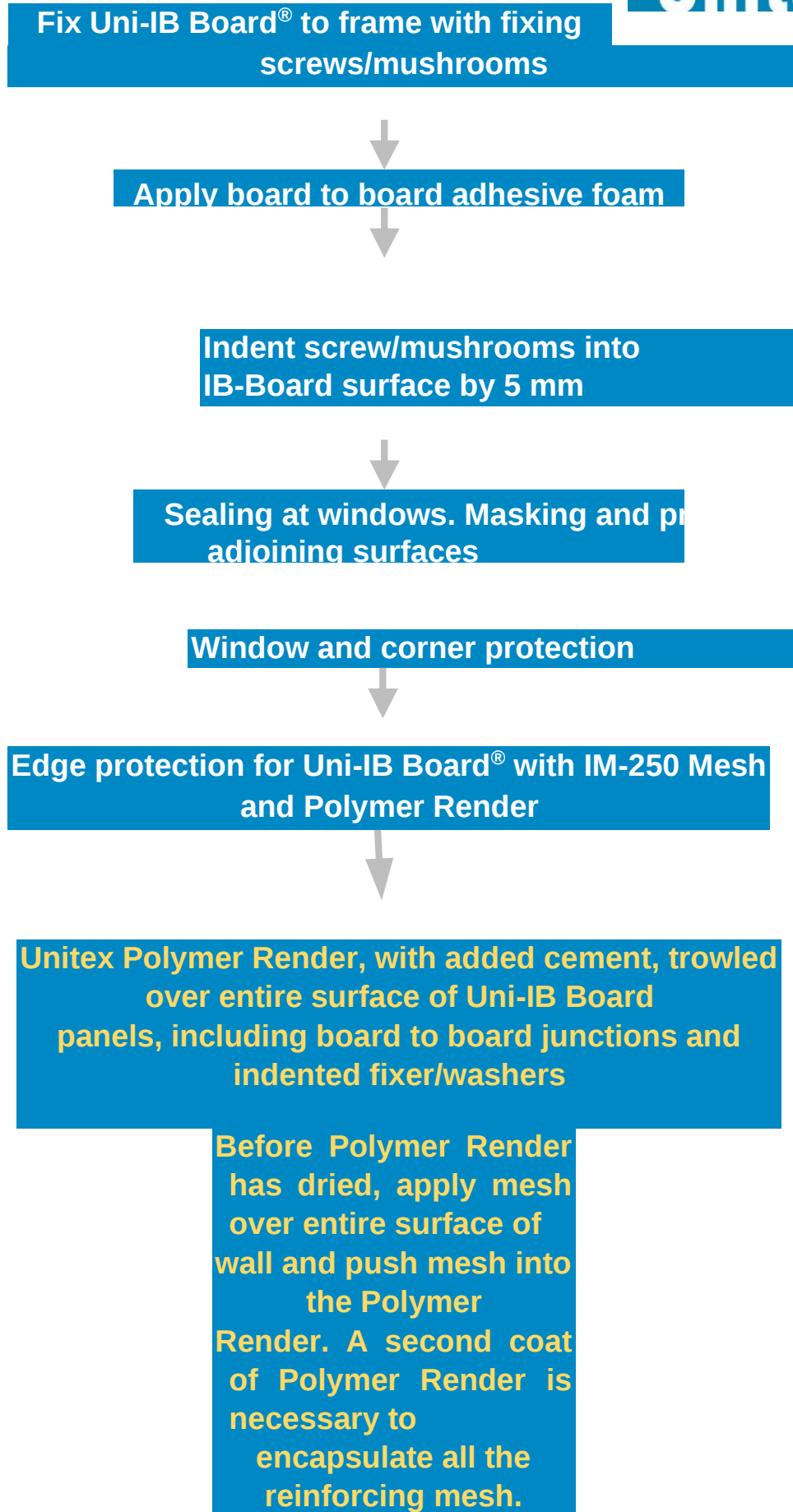
**Note:**

With features such as meter boxes, balustrades, parapets, downpipes, cabling, fixtures, etc. and penetrations through the Uni-Base Board<sup>®</sup>, see separate detailed instructions below.

#### 4.1b Using uncoated Uni-IB Board Panels

Flowchart for installing **Unitex Base Board<sup>®</sup> Non-Cavity System** onto a breathable building (sarking) wrap covered frame using **uncoated Uni-IB Board Panels**.





**Note:**

With features such as meter boxes, balustrades, parapets, downpipes, cabling, fixtures, etc. and penetrations through the Uni-Base Board®, see separate detailed instructions below.

## 4.2 Detailed Instructions

### 4.3 Breathable Sarking Building Wrap

All framing exterior surfaces shall be covered with a breathable type vapour permeable building wrap (sarking) recommended as suitable for use in a single skin system. The recommended sarking is Unitex Breathable Vapour Permeable Building Wrap. Alternatives can either be a kraft-based paper complying with AS/NZS 4200.1-2017 or breather-type membranes covered by a valid BRANZ Appraisal for use as wall wraps. Sarking must be installed horizontally and continuous around corners, and must be overlapped 75mm minimum, upper layer over lower layer at the horizontal joints, and 150mm over studs at vertical joints. Self-adhesive flashing tape is used to secure the overlap sarking onto the lower layer. Sarking support, usually a polypropylene strap, is used for preventing the sarking from flapping in wind. The building wrap shall be taken into all joinery openings and fastened to the outer face of the framing.



Sarking is installed with top wrap overlapping the lower wrap and sealed with an approved flashing tape. Sarking to penetrations must also be sealed with flashing tape. Head, jambs and sill junctions shall be adequately overlapped and an approved flashing tape used to cover these internal junctions.

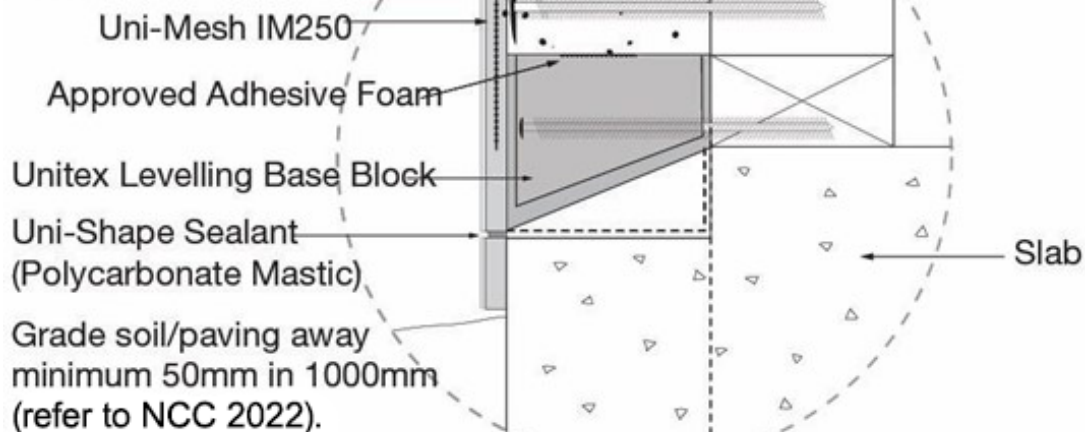
#### 4.4 Install Levelling Base Block to foot of wall



Start by levelling and mechanically fixing the **Unitex® Levelling Base Block** to the base plate of frame with building wrap (sarking) in place. Use fixers at least 25 mm longer than the thickness of the **Uni Base Board®** and fix to the base of the framing. As **Unitex® Levelling Base Blocks** are rigid, screws without washers usually provide adequate fixing. Ensure that soil and paving is not in contact with the base of the wall. A 100 mm clearance to paved ground and 175 mm clearance to unpaved ground is recommended.

## Unitex® Uni-Base Board™: Slab at ground

Unitex® BBR (5-15mm depending on which system) and Unitex supplied finish system (Unitex Texture and Uni-PTC).

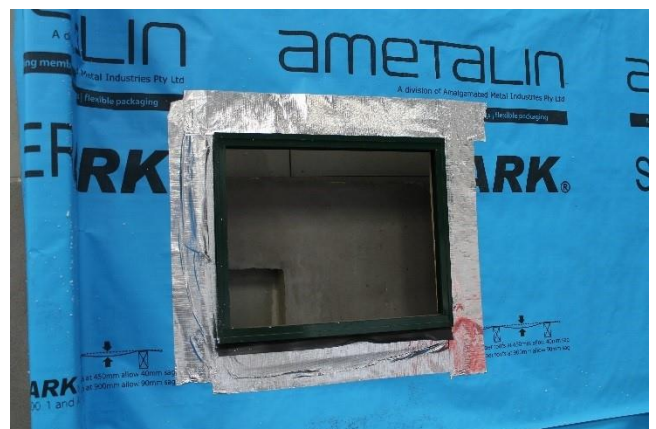


### NOTE:

1. Termite protection by builder (and/or 75mm clearance).
2. Do not backfill over Uni-Base Board.
3. Slab to conform to local regulations.

## 4.5 Seal windows, all penetrations and measure openings

Seal all the building wrap with flashing tape around windows, doors and all penetrations, etc. To windows only, apply **Uni-Shape® Sealant** to the rear of the window frame drain joints. Ensure drain joints and sealing rubbers on windows are free (not squeezed) and are able to function. Where openings such as windows and doors penetrate the wall elevation, measure off wall and transfer these measurements to the **Uni Base Board®** or **Uni-IB Board** panels.



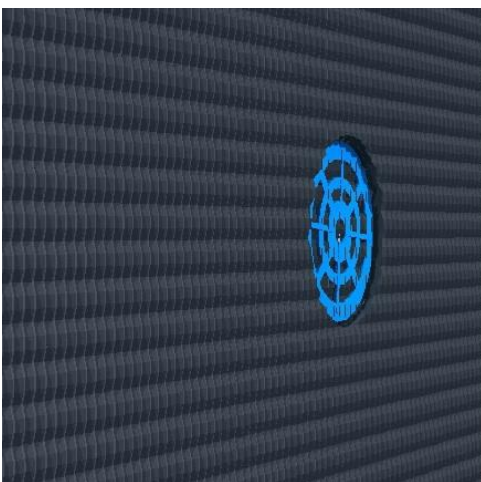
## 4.6 Cut Uni-Base Board® to size



It is always a good idea to measure twice and cut once. After measuring the wall and marking up **Uni-Base Board®**, saw cut to size when wearing the appropriate Personal Protection Equipment (including dust masks). Cut either manually or with an electric saw.

All waste pieces and sawing scrap should be bagged and binned or returned to Unitex® for reprocessing. Unitex® also offers a clean scrap collection service.

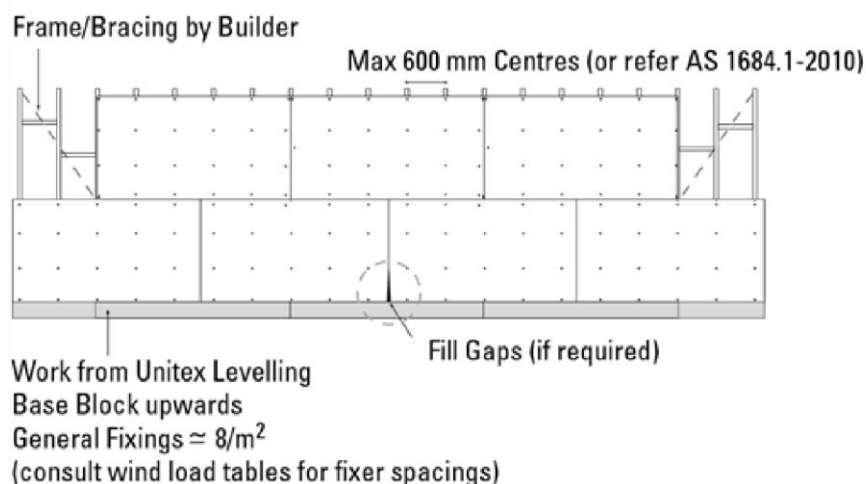
#### 4.7 Fixing Uni Base Board®



Uni-Base Board should be fixed and held securely to the studs of the framing. Install extra Back Blocking and/or noggins if required so that the sheets are held firmly and rigid. Use at least eight (8) Uni-Screw Fixer/Washers per square metre. Consult Table1 above for maximum Fixer

spacings when in areas prone to high winds. Please note that the Unitex Base Board System is not suitable in areas frequented by tropical cyclones. All sheet to sheet junctions must fit snugly together with no open gaps.

### Uni-Base Board Fixing to Wrapped Frame - Front Elevation



#### NOTES:

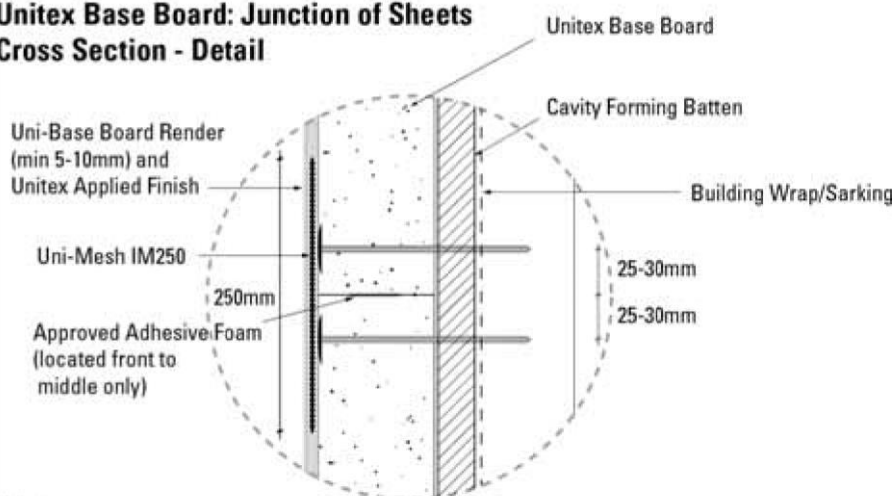
1. Uni-Base Boards to be fixed horizontally with staggered joins (common brick pattern)
2. Do not fix sheets vertically
3. Screw Uni-Base Board through Cavity battens to wrapped frame

### 4.8 Apply adhesive foam between Base Boards

Once the first sheet has been fixed, apply Unitex<sup>®</sup> approved Adhesive Foam from a gun to the front half of all edges of **Uni Base Board<sup>®</sup>** that come in contact with the next installed sheet. Ensure that there are no gaps between the sheets and that all sheets are level. Make sure that any foam does not ooze behind the sheets.



#### Unitex Base Board: Junction of Sheets Cross Section - Detail



#### NOTE:

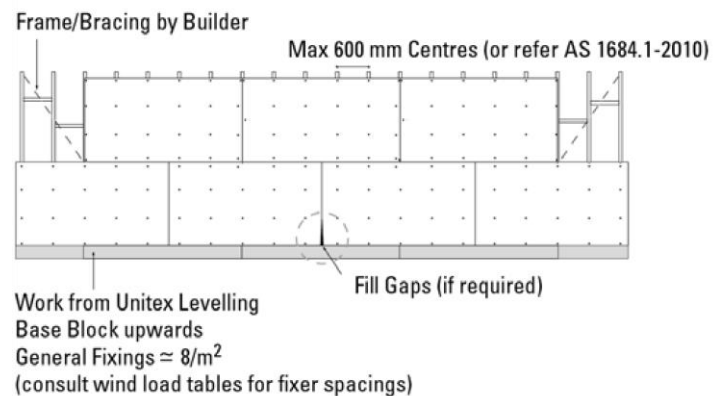
Uni-Mesh IM250 embedded in Polymer Render then overcoated with Uni-Base Board Render (5-10mm min.) and Unitex Applied Finish.



## 4.9 Laying out Uni Base Board

The **Uni Base Board**® sheets are to be installed horizontally across a minimum of 4 studs. Install sheets from bottom to top and stagger all joints as per a common bond brick pattern. At the corners, stagger the sheets and overlap them. Corners require extra studs for added fixing strength and rigidity. Use extra **Uni-Screw**®/**Washer** Fixers (mushrooms) if required.

### Uni-Base Board Fixing to Wrapped Frame - Front Elevation



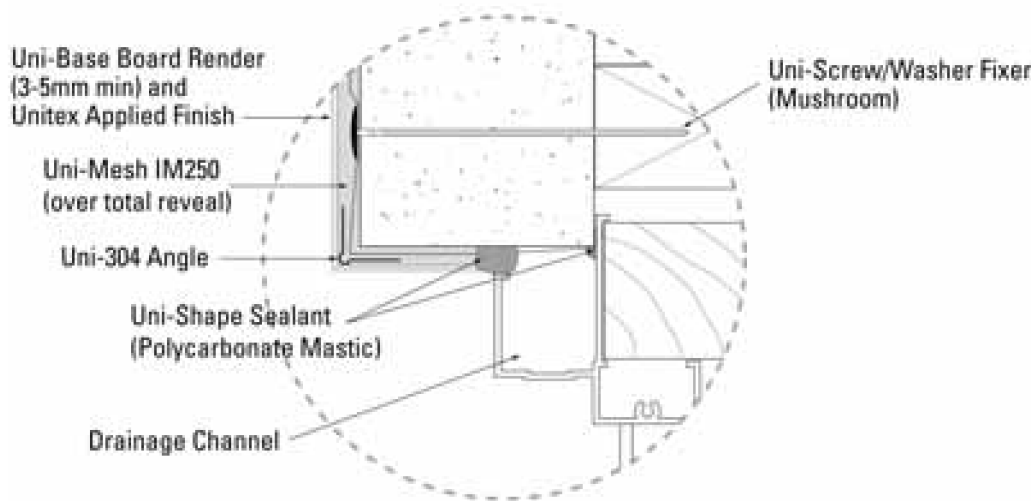
#### NOTES:

1. Uni-Base Boards to be fixed horizontally with staggered joints (common brick pattern)
2. Do not fix sheets vertically
3. Screw Uni-Base Board through Cavity battens to wrapped frame

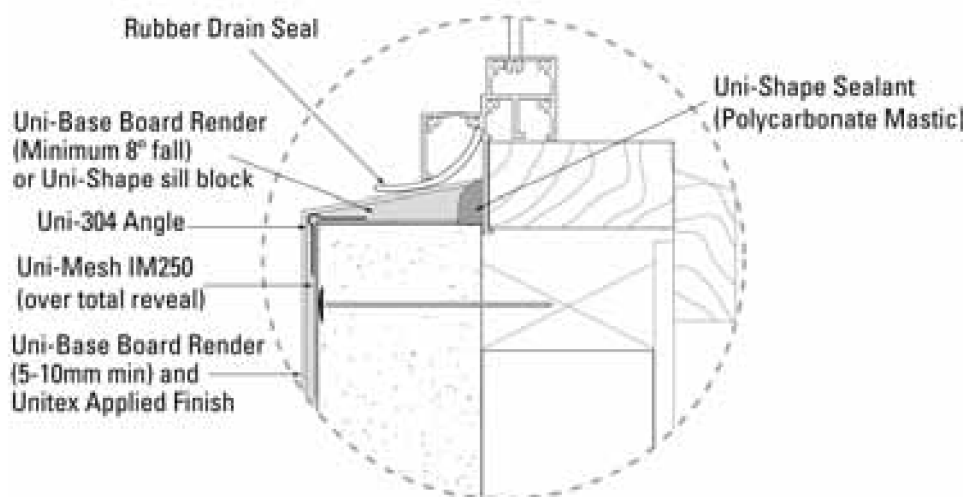
All washer/screw heads embedded by approx. 5 mm into **Uni Base Board**® must be flush stopped with **Unitex**® **Polymer Render** (with added cement) and made level with the surrounding Base Board. This provides a level surface for subsequent application of renders, protection against corrosion for the screw and ensures that washers will not be seen under subsequent layers of render and texture finishes.

## 4.10 Sealing at windows

### Unitex Base Board: Cross Section of Window Head Edge Reveal - Detail



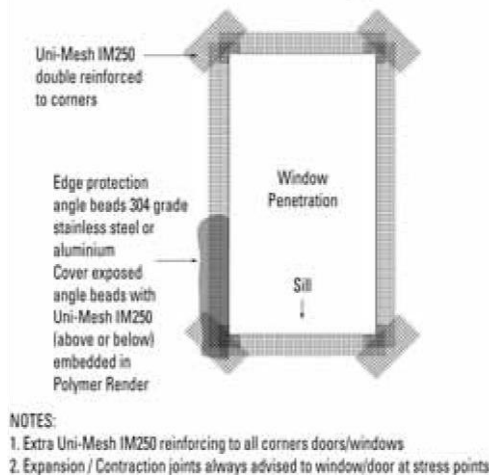
### Unitex Base Board: Cross Section View of Window Sill Reveal - Detail



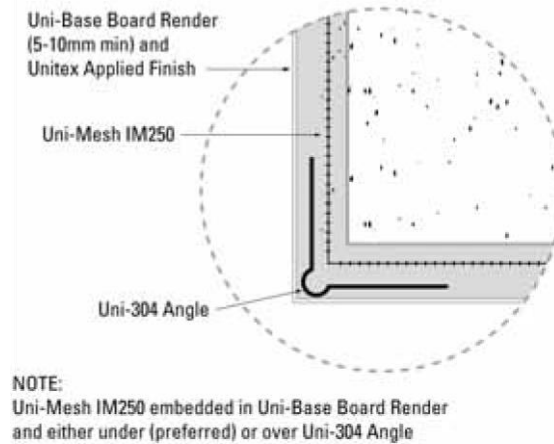
When installing an awning type window, apply **Uni Shape® Sealant** to the rear flat of the window C section drain joint, in effect to the rear of **Uni Base Board®** adjacent to the window frame around the window. Cut **Uni Base Board®** so that it is 5 mm clear of the window frame and a minimum of 20 mm free of the frame at the window sill. Cut the window sill on an angle to allow for a minimum 8° slope/fall away from the window. For larger sills, a 10-30° slope is recommended (be mindful of aesthetics).

## 4.11 Window and Corner protection

### Unitex Base Board: Window Edge Reveal - Detail



### Unitex Base Board: Corner Detail - Plan View



All Uni-Base Board edges are to be further protected with **Uni-304® Angle Bead** (304 grade stainless steel) or Aluminium angles embedded in mesh reinforced Unitex Polymer Render (with 5-10 %) added cement). They must be full lengths from corner to corner and also overlap at the corners.

All window heads and sills, architrave leading edges and external building corners are to be extra reinforced with **Uni-Mesh® IM 250** patches overlapping into reveals. The fibreglass mesh should return and cover the reveal and can be installed under or over the **Uni-304® Angle** or Aluminium angles and into the wall face for a minimum 125 mm. Embed the fibreglass mesh into **Unitex® Polymer Render**, modified with 5-10% Portland cement.

## 4.12 Substrate Preparation

Areas not to be coated should be masked and protected, e.g. windows, roofing, down pipes, paving, etc.

All surfaces to be rendered must be dry and clean, stable and free from surface contaminants including: ultra violet degraded EPS (seen as yellowish powder residue), oil, mould release, other dusts, dirt, mud, and any loose or flaking material.

## 4.13 Application

Tools etc. required: power drill/mixer, laying-on trowels and hawk, floating (rubbing) and sponging trowels of plastic or polystyrene, spirit level, straight edge, masking tapes, cutting tools, grinder/discs, mastic gun, paint roller, brushes, plastic and/or material drop sheeting and

3-ply timber sheets for roof protection. Render pumping machinery (type with separate mixing and pumping processes) is optional.

- Check that **Uni Base Board**® sheets have been installed securely and correctly.
- Mix 5-10% Portland cement into a pail of **Unitex**® **Polymer Render** with a power drill/mixer.
- Apply a 5 mm layer of **Unitex**® **Polymer Render** (with cement added) over all washer/screw heads, all sheet to sheet junctions and around all bare EPS at corners and penetrations such as doors, windows, etc. using a steel trowel and whilst the render is wet, embed a layer of **Uni-Mesh**® **IM250** alkali resistant fibreglass mesh ensuring that mesh pieces are overlapped by a minimum of 100 mm. During application and drying of the render, the rendered walls and sub-frame must not be interfered with by other trades until set and drying is completed (no hammering, drilling, vibration of walls, etc.).
- Wait 72 hours and test for moisture content with a hand-held Moisture Meter. If the reading is 12% Wood Moisture Equivalent or below, thorough drying has occurred and the overlying render can be applied. If the reading is above 12% WME, wait more time until the surface is suitably dry. Unitex® uses and recommends the **GE Protimeter Surveymaster moisture meter**.

#### 4.14 Importance of thorough drying.

Generally, the substrate must be dry before application of the render. Likewise, the render must be dry before a texture is applied over the render and similarly, the texture must be dry before a topcoat such as **Uni-PTC**® is rolled over the texture. It is the responsibility of the Builder and/or Contractor to ensure that each surface (including substrate) is thoroughly dry before the next coat (render, primer/sealer, texture or topcoat) is applied. Unitex® recommends that professional contractors use a Moisture Meter to determine the degree of dryness. Building Inspectors consider dry conditions to be consistent with readings of less than 12% WME (Wood Moisture Equivalent). Wet and cool conditions and also tropical wet and humid conditions present the most challenging weather conditions to achieve dryness levels suitable for overcoating. Should a coating be applied on a substrate or surface that has not sufficiently dried, sometimes a white bleaching, blistering and/or cracking on the surface may occur in the weeks after application as moisture slowly evaporates out of the system.

#### 4.15 Reinforcing mesh to junctions

Uni Base Boards® are supplied pre-meshed so all Uni Base Board® to Uni Base Board® junctions are to be reinforced with Uni-Mesh® IM 250 embedded in minimum 2-3 mm Unitex® Polymer Render (with 5-10 % added cement). The mesh should extend 125 mm approx. on each sheet. All screw washer heads (depressed in surface approx. 5 mm) should be coated with Unitex® Polymer Render (cement added). This creates a total surface reinforced render envelope prior to expansion (control) joint installation.



#### 4.16 Mixing Uni Dry Cote Base Board Render



After **Unitex® Polymer Render** has thoroughly dried (see **4.2.15 Importance of thorough drying**), the surface can be coated with **Uni Dry Cote® Base Board Render**. This is a specialty polymer modified purpose made product that adheres to the factory applied reinforced render that pre-coats the EPS sheets.

**Uni Dry Cote® Base Board Render** is supplied in 15 litre bags. **There are two grades**, conventional and lightweight. See earlier. Both grades are prepared for application by the same methods. Add approximately 4 litres of clean water to a clean 15 litre pail and slowly add **Uni Dry Cote® Base Board Render** powder while drill mixing to form an homogeneous mix free of lumps. Adjust the render viscosity with more Render or more water to achieve a slump that allows a uniform coating thicknesses of 5-10 mm. Allow the mix to stand for 5 minutes then remix and adjust the consistency if required.

**Uni Dry Cote® Base Board Render** is formulated with elevated polymer levels to provide strong adhesion to the factory coated **Uni-Base Board®** or Polymer Render-coated **Uni-IB Board** panels and provides the ideal base for the subsequent application of a variety of Applied Texture Finishes and top coats. **Uni Dry Cote® Base Board Render** is the only Unitex® approved render for applying over pre-coated and patched Uni Base Board®.

#### 4.17 Applying Uni Dry Cote® Base Board Render



Using a Hawk and Trowel or Render Spray Machine, apply **Uni Dry Cote® Base Board Render** evenly over the surface to the required depth. A 5 mm build is normal plus at least 5 mm is recommended to cover all indented screw washer heads. From time to time, additional impact protection, especially on ground floors, is needed or when levelling of **Uni Base Board®** sheets is necessary such as when correcting earlier minor uneven levelling faults, builds up to 10 mm may be required.

This can be achieved with either 1 or 2 coats of **Uni Dry Cote® Base Board Render**.

#### 4.18 Floating Uni Dry Cote® Base Board Render

Before the render has surface dried, floating with a polystyrene or plastic float must be carried out to smooth out the surface. Render coats are hand finished and some variation is usually acceptable as long as these variations are not more than 3 mm per metre radius. Hence it is important that the Base Boards have been prior installed relatively true and level. This is the Builders responsibility to provide an acceptable frame that is packed out where necessary. Allow the render to set and cure for 72 hours before measuring the WME (see **4.14 Importance of thorough drying**). If below 12% WME, a Unitex® Applied Texture Finish can be applied. Unitex manufactures a full range of texture effects from sandy to rough cast and scratch effects (see **Section 3. Materials used in the Unitex Base Board® system** above).

#### 4.19 Uni Base Board® window reveals



Window reveals shall be coated with **Uni Dry Cote® Base Board Render** to 5 mm depth. Sills should fall or slope at least 8° away from the window to prevent water flowing back. The window

sill rubber flap (supplied with the window) needs to remain free, clean, firm and intact. It is good practice to protect other surfaces (glass, frames, tiles, pavers, etc.) with plastic, paper or a peeloff coating before applying render and finishes.

## 4.20 Expansion and control joints

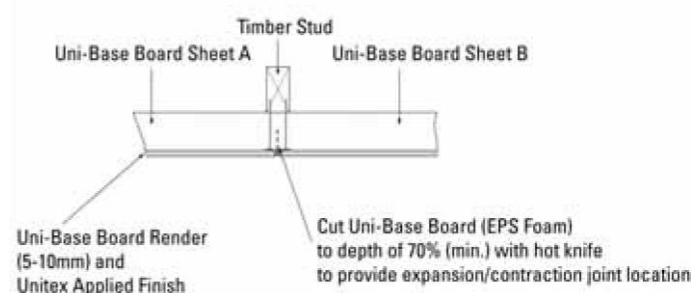
### Unitex Base Board: Guide for Control / Expansion Joints - Front Elevation [use same principles for other elevations]



#### NOTES:

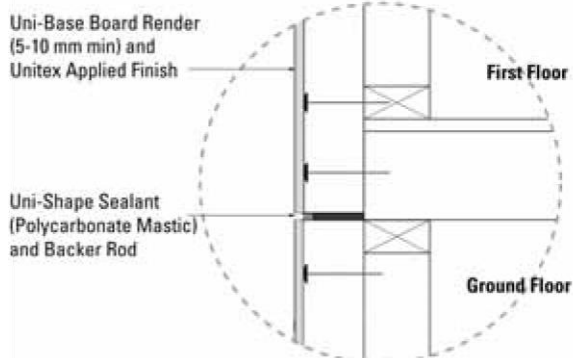
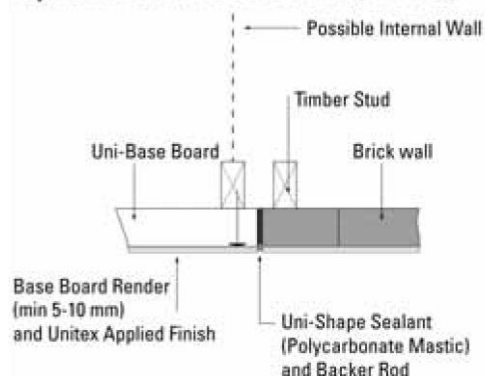
1. Use this drawing if no other information available.
2. Expansion/Control Joints are required for every elevation.
3. At all dissimilar substrate material junctions expansion/control joints must be installed eg brick to Uni-Base Board, block to Uni-Base Board.
4. Vertical expansion joints are recommended at least every 6 m minimum (refer Builder).

### Unitex Base Board: Expansion/Contraction Joints [vertical] - Plan View



### Unitex Base Board: Expansion Joints [horizontal]

#### Unitex Base Board: At Dissimilar Substrates Expansion Joints are essential [vertical]





**Unitex Base Board<sup>®</sup> Non-Cavity System** is a single skin construction method and is fitted to an existing frame or surface. Expansion and control joints are essential and are recommended at least every 6 metres and between floor levels. Unitex<sup>®</sup> recommends additional expansion joints to be installed at known wall structural weaknesses, i.e. windows, doors and general wall penetrations. **Note:**

Expansion/contraction joints are to be installed in the dry render coat and cut through to approx. 75% depth of the EPS substrate. They must be uniform, even in thickness and depth, and be straight, either in a horizontal or perpendicular plane.

The EPS acts as backer and the mastic sealant, e.g. **Uni-Shape<sup>®</sup> Sealant**, is applied in the cut joint (approx. 8 mm wide and to a depth of approx. 5 mm).

For a controlled and non-dusty render edge to which the mastic adheres, Unitex<sup>®</sup> recommends pre-treatment with **Unitex Cembond<sup>®</sup>** acrylic sealer coat.

For a mastic sealant to be effective, it must be approx. half as deep as it is wide, hence for fit-for-purpose expansion and contraction joints, renders must be 6-11 mm thick.

Expansion joints are to be completed as above prior to the application of Applied Texture Finishes and paints.

Applied Texture Finishes are not to overcoat or bridge the expansion joint.

The cross linked and dried **Uni-Shape<sup>®</sup> sealant** can only be overcoated with flexible paint being **Uni-PTC<sup>®</sup>** (pigmented protective top coat). On cross-linking and drying, the Uni-Shape sealant changes from a milky appearance to clear.

## 4.21 Unitex® Applied Texture Finishes over Uni Base Board®



Purpose: **Applied Texture Finishes** and surface coatings provide colour and surface effect decoration with extra weather and water protection and are to be compatible with and provide excellent adhesion with the rendered substrate. Before applying a **Unitex® Applied Texture Finish**, ensure that the surface is thoroughly dry. (see **4.14 Importance of thorough drying**). Various texture effects from a sandy finish to scratch and rough cast are available when using products from the **Uni Trowel Décor®** and **Uni Roll Décor®** ranges and these product ranges can be factory tinted. Alternatively, where cement effects are desirable, **Uni Dry Cote®** textures in powder form, which are prepared in a similar method as **Uni Dry Cote® Base Board Render**, can also be used as a trowel finish that is applied over render. **Uni Dry Cote®** textures are largely not available as pre-coloured products and it is recommended that the topcoat, **UniPTC®**, which can be tinted, be coated over **Uni Dry Cote®** textures. These coatings enhance the decorative effect, durability, washability, rub resistance and resist the moisture ingress of the **Unitex Base Board® Non-Cavity System**.

N.B. Unitex® continue to offer innovative products to the market and are now offering a limited range of earthy colours in the Uni Dry Cote® texture range. Contact Unitex® for details. **Uni Trowel Décor®** and **Uni Roll Décor®** are paste products that are directly applied with a trowel or roller whereas **Uni Dry Cote®** Texture is a powder that must be added to 3.5-4 litres of clean water and mixed with a power drill/mixer until a smooth, lump free consistency of trowelling viscosity is formed. Again, leave the mix to stand for 5 minutes and re-mix with the power drill/mixer and adjust the consistency as appropriate.

A coating of tinted or white **Uni-PTC®** is applied by paint roller, brush or spray equipment after 72 hours if WME is  $\leq 12\%$  to provide a long lasting, matt surface.

### Clean Up

Clean up with water (away from finished surfaces).

## 4.22 Important Notes

- Do not apply Renders or Applied Texture Finishes on unprotected surfaces when rain is anticipated. In damp, cold and/or humid conditions, thorough drying may take 7 days and longer.

- Avoid applications in full sun, on hot surfaces or in hot, windy conditions.
- Application of product should be carried out on a day with temperatures above 10°C and below 35°C.
- The coated area must be protected from damage until the completion of the project. Finished work must be protected from rain, overnight condensation/dew, frost and severe weather conditions until fully dried.
- Primer/Sealer/Top Coats should not be applied until the Applied Texture Finish is thoroughly dry (WME ≤12%, see **4.14 Importance of thorough drying**).
- In keeping with other trade damage and builder issues, it is often best to apply the **UniPTC®** top coats as late in the project as possible prior to handover (especially in commercial multiunit projects).
- Repairing damaged Base Board System will require removal and replacement from stud to stud and complete re-rendering and meshing from closest corner to closest expansion joint, etc (meaning NOT spot patching) for a generally acceptable result for the builder/home owner. Unitex technical staff should be contacted for recommendations and advice only in writing or email form.
- Lighter colours reflect heat from the surface better than darker colours and especially from lower roof lines onto upper storeys. Darker colours may fade more rapidly than pastel lightfast colours.

### 4.23 Packaging

#### Unitex® Polymer Render

Plastic pail

Volume: 15 litres (approx. 23 kg), 32 pails per pallet

#### Uni Dry Cote® Base Board Render

Paper sack/bag

Volume: 15 litre net per bag, 60 bags per pallet

#### Base Board Render 20kg

#### BBR 8.5kg

#### Uni Décor Applied Texture Finishes

Plastic pail

Volume: 15 litres (approx. 23 kg), 32 pails per pallet

#### Uni Dry Cote® Applied Texture Finishes

Paper sack/bag

Weight: 20 kg net per bag, 60 bags per pallet

#### Uni-PTC® protective top coat

Plastic pail

Volume: 15 litres (approx. 17 kg), 32 pails per pallet

**Table 6 Coverage**

| Product                         | Coverage m <sup>2</sup> /pail or bag                                      | Application thickness (mm) |
|---------------------------------|---------------------------------------------------------------------------|----------------------------|
| Unitex® Polymer Render          | 8-10                                                                      | 2-5                        |
| Uni Dry Cote® Base Board Render | 2-5                                                                       | 5-10                       |
| Uni Décor® range                | 16-18 (fine grades)<br>9-11 (medium grades)<br>4-8 (coarse stucco grades) | 0.3-0.6<br>0.8-1.2<br>2-4  |
| Uni Dry Cote® range             | 8-10                                                                      | 1-1.5                      |
| Uni-PTC®                        | 30-50 (sealer and 2 coats) Flexible Paint film                            |                            |

**Note: Total coating thickness applied over the EPS must be not less than 10 mm.**

**Table 7 Technical Data**

| Product                | Form  | Prepare by:                     | Apply with:   | Pot Life                                          |
|------------------------|-------|---------------------------------|---------------|---------------------------------------------------|
| Unitex® Polymer Render | Paste | Add 5-10% cement by power mixer | Hawk & Trowel | With cement added – 2 hours, otherwise – 6 months |

|                                                |                |                                                                       |                                      |                                                                    |
|------------------------------------------------|----------------|-----------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------------|
| <b>Uni Dry Cote®<br/>Base Board<br/>Render</b> | Powder         | Add to 4 litres water<br>with power mixer until<br>smooth paste forms | Hawk & Trowel, Float<br>to finish    | As dry powder in<br>unopened bags – 6<br>months As paste – 2 hours |
| <b>Uni Décor®<br/>range</b>                    | Paste          | Ready to use                                                          | Roller or Trowel,<br>Float to finish | In unopened pails – 1 year                                         |
| <b>Uni Dry Cote®<br/>range</b>                 | Powder         | Add to 4 litres water<br>with power mixer until<br>smooth paste forms | Hawk & Trowel, Float<br>to finish    | As dry powder in<br>unopened bags – 1 year<br>As paste – 2 hours   |
| <b>Uni-PTC®</b>                                | Viscous Liquid | Ready to use                                                          | Roller, brush or spray               | In unopened pails – 1 year                                         |

## 4.24 Maintenance

Walls clad with the **Unitex Base Board® Non-Cavity System** are recommended to be cleaned annually by low pressure water washing to remove all existing surface contaminants, with special attention to sheltered areas. When re-coating is required at the 7- 8 year period, to maintain long term integrity and a pristine condition, this can be carried out using **Uni-PTC®** over a cleaned surface. Unitex recommends a sealer and 2 coats with a roller for achieving good hiding and more coats if a light colour covers a dark colour.

Annual inspections are to be implemented after completion to clearly identify any faults in the cladding, sealant, flashings and any other connections. Physical damage must be repaired as soon as possible using the appropriate Unitex® system. A repair process must be implemented immediately to address any faults so the long-term warranty is not compromised. Contact [sales@unitex.com.au](mailto:sales@unitex.com.au) for advice and recommendations.

## 4.25 Unitex Base Board® Non-Cavity System for peace of mind

The **Unitex Base Board® Non-Cavity System** is quick and easy to install but relies on a team effort:

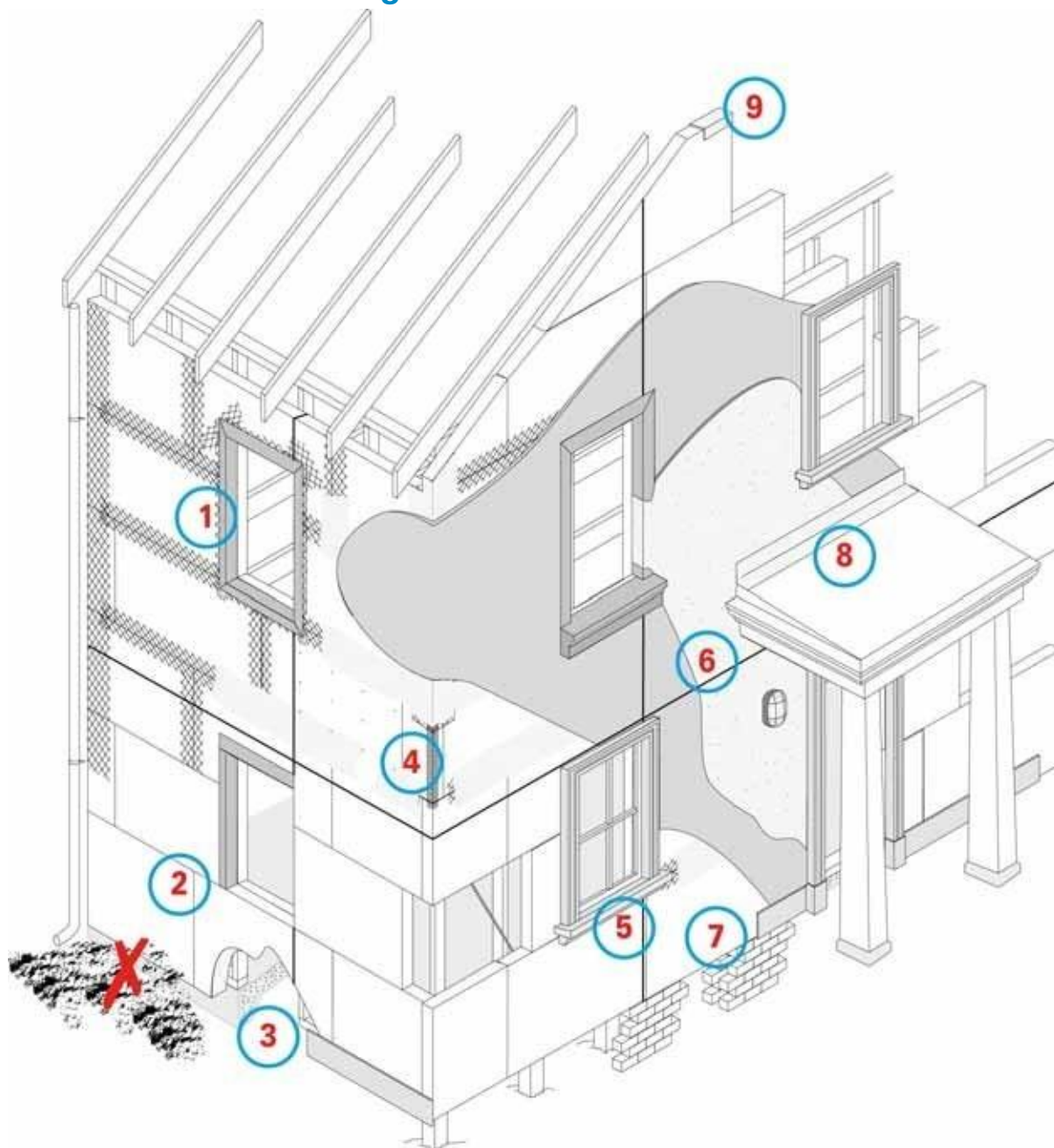
- Quality Substrate (by Builder)
- Quality Product System (by Unitex®)
- Experienced and trained Tradespeople (to finish)

So when the **Unitex Base Board® Non-Cavity System** is installed as above with all the nominated Unitex® products as described in this Manual, Unitex® backs up with a site specific seven year warranty.

Sto Australia Pty Ltd. is a system originator and accepts nil substitution of components, other than those supplied and specified by Unitex® at the time of purchase.

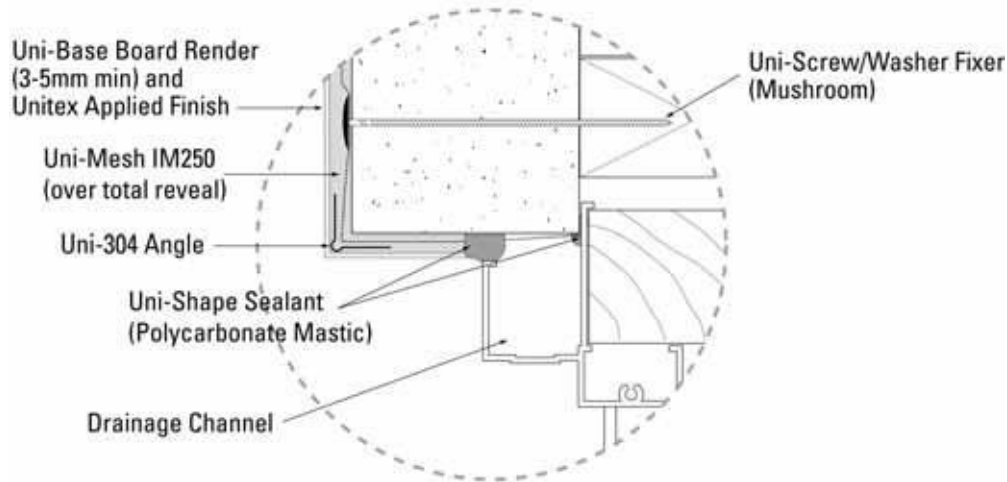


## 5. Installation and Fixing Details



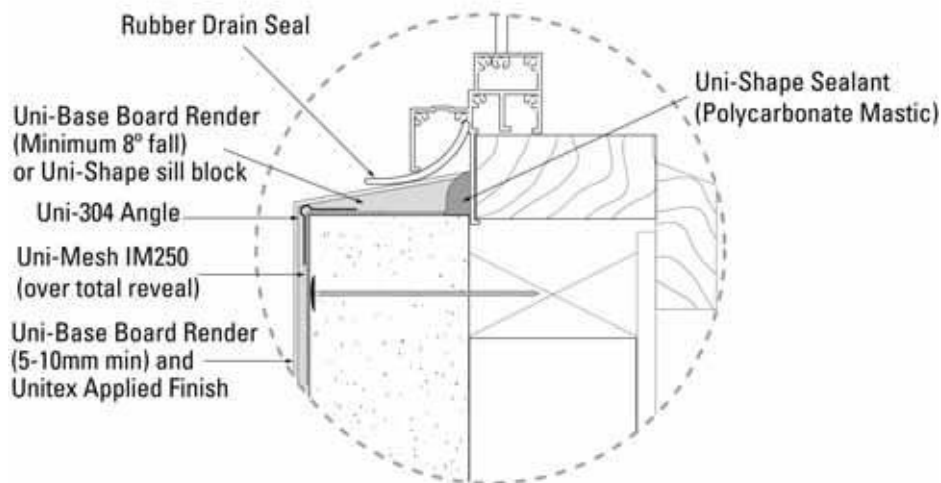
**1A**

### Unitex Base Board: Cross Section of Window Head Edge Reveal - Detail



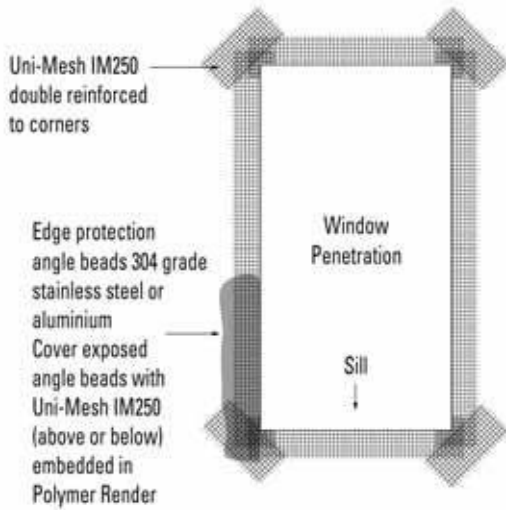
**1B**

### Unitex Base Board: Cross Section View of Window Sill Reveal - Detail



**1C**

## Unitex Base Board: Window Edge Reveal - Detail



### NOTES:

1. Extra Uni-Mesh IM250 reinforcing to all corners doors/windows
2. Expansion / Contraction joints always advised to window/door at stress points

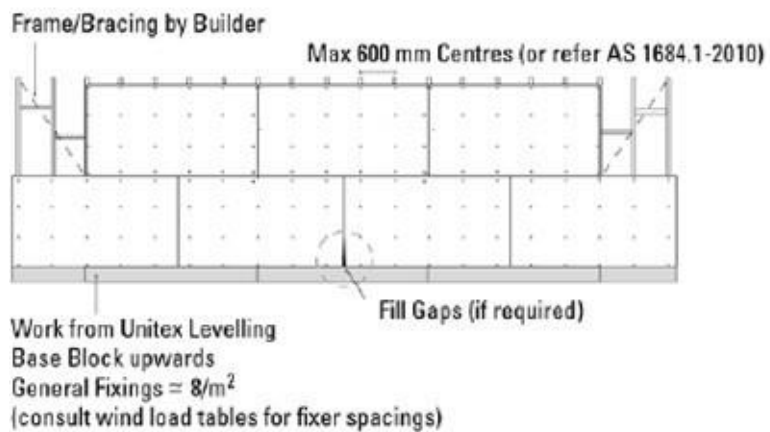


Fastener Positioning Details



**2A**

### Uni-Base Board Fixing to Wrapped Frame - Front Elevation

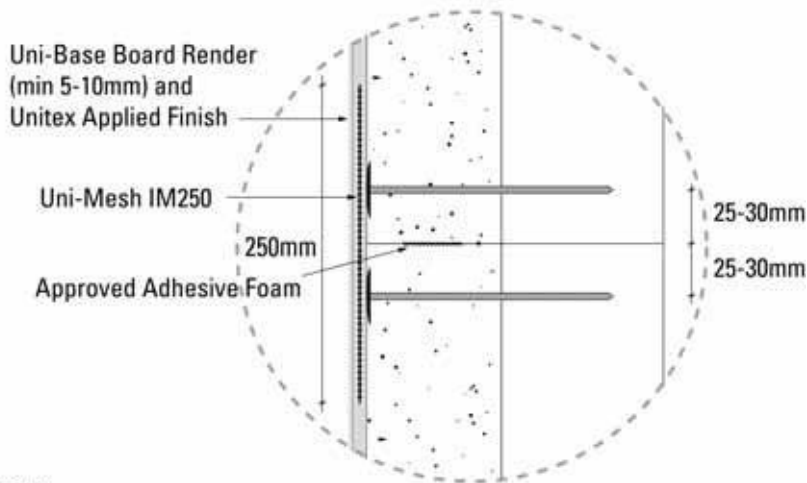


#### NOTES:

1. Uni-Base Boards to be fixed horizontally with staggered joins (common brick pattern)
2. Do not fix sheets vertically
3. Screw Uni-Base Board through Cavity battens to wrapped frame

2B

## Unitex Base Board: Junction of Sheets Cross Section - Detail

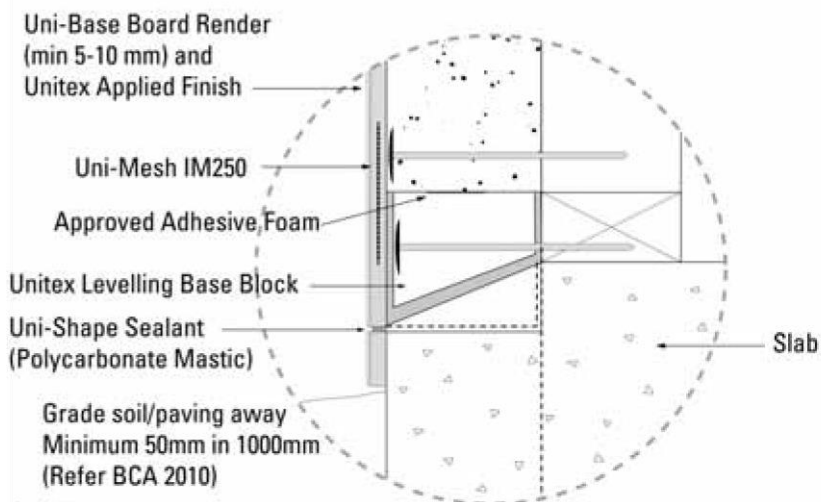


### NOTE:

Uni-Mesh IM250 embedded in Polymer Render then overcoated with Uni-Base Board Render (5-10mm min.) and Unitex Applied Finish.

3

## Unitex Base Board: Slab at Ground

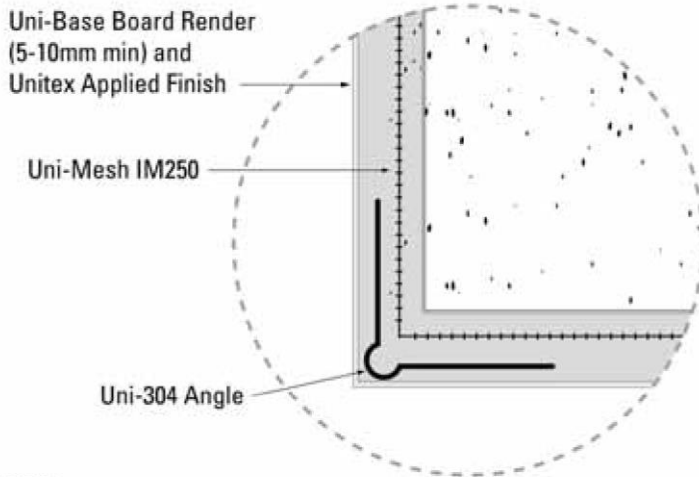


### NOTE:

1. Unitex Applied Finish provides a clean and durable surface.
2. Do not backfill over Uni-Base Board.
3. Slab to conform to local regulations.

4

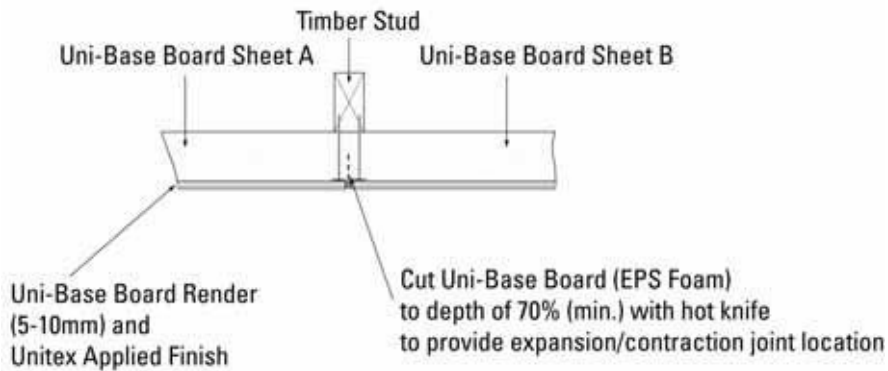
### Unitex Base Board: Corner Detail - Plan View



**NOTE:**  
Uni-Mesh IM250 embedded in Uni-Base Board Render and either under (preferred) or over Uni-304 Angle

5

### Unitex Base Board: Expansion/Contraction Joints [vertical] - Plan View



5/6

### Unitex Base Board: Guide for Control / Expansion Joints - Front Elevation [use same principles for other elevations]

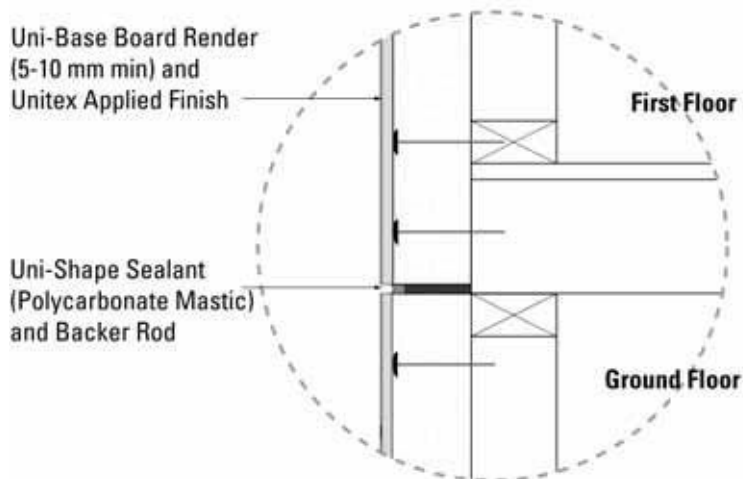


#### NOTES:

1. Use this drawing if no other information available.
2. Expansion/Control Joints are required for every elevation.
3. At all dissimilar substrate material junctions expansion/control joints must be installed eg brick to Uni-Base Board, block to Uni-Base Board.
4. Vertical expansion joints are recommended at least every 6 m minimum (refer Builder).

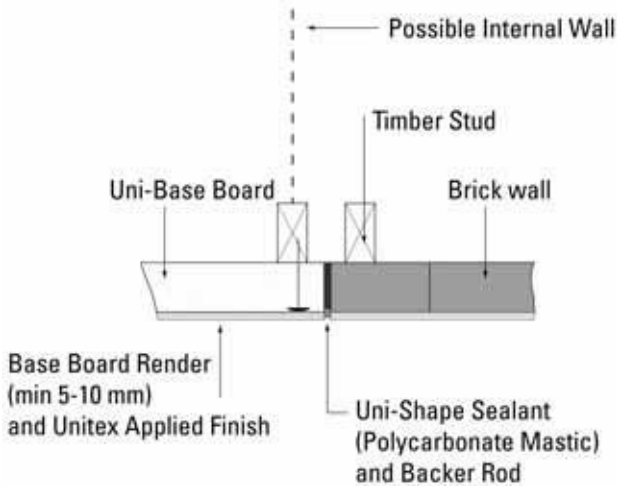
6

### Unitex Base Board: Expansion Joints [horizontal]



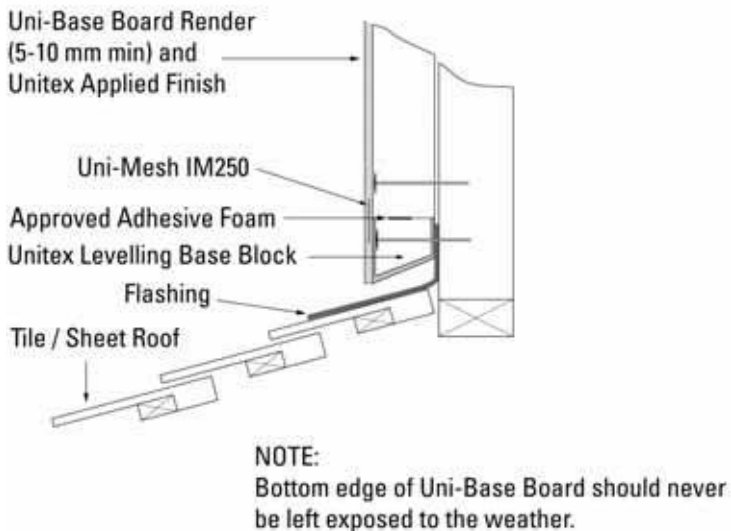
7

### Unitex Base Board: At Dissimilar Substrates Expansion Joints are essential [vertical]



8

### Unitex Base Board: Second Storey

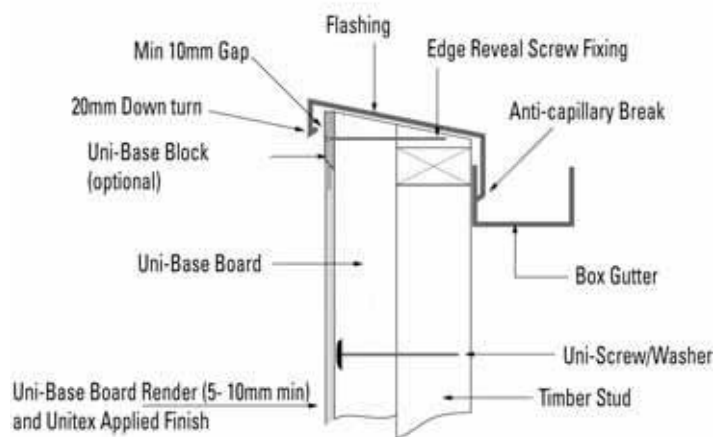


### Inter-storey Junctions

Inter-storey drained joints must be provided for walls over 2 storeys in height. It is the responsibility of the building designer to determine the requirements for barriers to vertical fire spread at inter-storey junctions.

9

## Unitex Base Board: Parapet Facade (recommended)

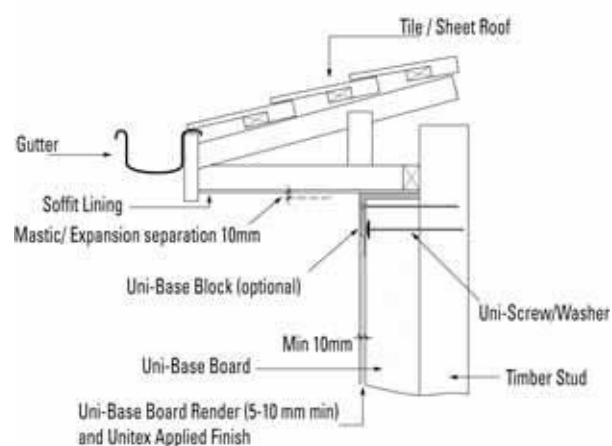


**NOTE:**  
The flashing angle and relevant details as determined by Engineer's specifications.

## 5.1 General Design Requirements

### Drawing 10

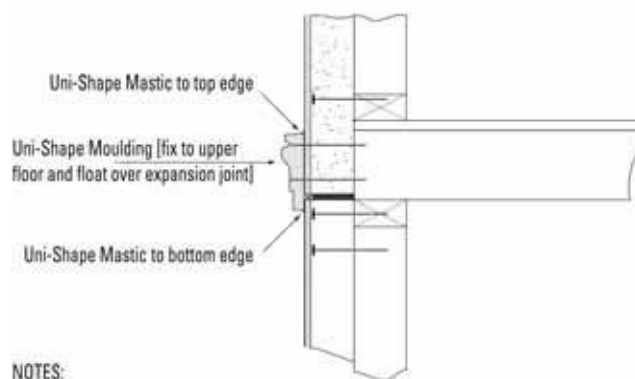
#### Unitex Base Board: at Soffit



### Drawing 12

### Drawing 11

#### Unitex Base Board: Fitting of Uni-Shape Moulding over horizontal expansion joint



**NOTES:**  
1. It is essential that a horizontal expansion joint be placed between each level.  
2. The ultimate responsibility for determining the location of expansion joints and horizontal expansion joint flashing is with the Designer / Engineer / Builder.

### Drawing 13





Exposed balustrades, by their unsupported height need to be well braced and require extra studs and noggins for strengthening to reduce movement with wind and other physical loads. These details must be worked out by the building designer. Unitex® stresses that the top of the balustrade must not be penetrated, must be fully sealed/flushed and inclined to prevent water pooling. Hand rails, etc. are to be fixed to the sub-frame into the side or rear face. Uni-Shape® capping mouldings can be installed over the water-proof flashing for enhanced decorative effects. As balustrades generally suffer some deflection, they must be isolated with expansion/contraction joints from the slab and at junctions, etc.

Note: for long-term protection from water ingress, standard metal flashing is always recommended as rendered balustrade upper surfaces will generally suffer from long-term weather and pollution deterioration.

## 5.4 Eaves

There is no minimum eaves size specified for this system. Normal building practices should be observed. Unitex® prefers eaves of minimum 450 mm. However, if eaves are minimal, a metal flashing, installed by a plumber, is required with downturned nib of minimum 50 mm and extends a minimum 10 mm past the rendered surface as wind driven rain is not to penetrate in behind the system.

## 5.5 Soffits

Soffits shall be fixed before cladding is installed. A 6/8 mm bead of **Uni-Shape® Sealant** is installed after EPS cladding is completed and before plastering commences to allow a flexible separation between the soffit and the rendered surface.

## 5.6 Architectural Shapes & Profiles



Any architectural shapes and profiles used to create detailing shall be correctly cut to size and installed according to the Unitex® Installation Guide (see [www.unitex.com.au](http://www.unitex.com.au)) for the appropriate type of shapes and profiles. For example, **Tex Moulds** from Unitex® made from EPS are fixed with Approved Adhesive onto **Uni-Base Board**® sheets whereas lightweight concrete mouldings (**UniShape**® by Unitex®) require mechanical fixers. **UniShape**® Sealant mastic and adhesive foam must be used to fill gaps between profiles and **Uni-Base Board**® sheets. For correct installation procedures, read the relevant Unitex Mouldings installation manuals.

## 5.7 Penetrations and Fittings

Penetrations and fittings such as prior-installed waste pipes and fixing brackets shall be flashed with a square sized flexible flashing tape fixed 100 mm all round onto the building wrap and a 25 mm strip wrapped around pipes or fitted to secure the star cut in the square, prior to cladding installation. All fittings are to be mastic sealed at the surface. Note: all penetrations through the **Unitex Base Board**® **Non-Cavity System** shall be adequately supported at the framing by blocking sized to suit.

All electrical wiring shall only penetrate the **Unitex Base Board**® **Non-Cavity System** in the appropriately sized uPVC conduit with flange installed, at a minimum downwards rake of 5°. All plumbing piping, etc, installed should have a downwards rake from the inside.

## 5.8 Flashings

Sealants cannot be fully relied on for detailing around parapets, box gutters, windows etc. with good design being the only real solution. All terminations and junctions must be adequately flashed using materials which are compatible with the Unitex® Base Board Non-Cavity System and comply with AS/NZS 2904 -1995. Parapets must be metal flashed and box gutters are to be back flashed. Parapet flashing is best designed with an approx. 10° fall back to flow water into a box gutter. The flashing must cover the complete top surface of the EIFS system and protrude at least 10 mm past the render/texture surface and thence turn down and right angle return well down pressing against the finished wall surface to create a drip line away from the wall. The minimum return dimension should be 50 mm (excluding drip edge) for wind zones N1 and N2, and 70 mm (excluding drip edge) for N3 and N4 to prevent water flow back. This work should be carried out by plumbers.

## 5.9 Parapets

Exposed Parapets by their unsupported height need to be well braced and may require extra studs and noggins for strengthening to reduce movement with wind load. The Unitex® recommended solution for parapets is to use a purpose made metal flashing on the top of the wall. For more details, see 5.1.7 Flashings.



Individual engineered solutions i.e. **Uni-Shape**<sup>®</sup> capping moulds, may be installed over the metal flashing so long as the flashing is not compromised. To avoid possible cracking caused by wind load stresses, expansion joints are recommended to be installed at the base of the parapet frame to lower wall frame junction.

### 5.10 Roof/Wall Junctions

Where a wall is above a roof, there must be a minimum 15 mm gap to provide for drainage. Flashing, installed by a plumber, must extend a minimum of 75 mm behind the Unitex Base Board<sup>®</sup> and must be taped onto the sarking with waterproof membrane tape by the builder. The flashing must extend along the roof under the cladding to a point where moisture drains onto the roof, and not be pushed by wind back up the cavity.

### 5.11 Pergola/Timber Beam/Deck Detail

Where a timber beam meets the building frame and Unitex Base Board Non-Cavity System is cladding the frame, horizontal expansion joints are cut above and below the beam. Uni-Shape Sealant fills the cut and provides a flexible, weatherproof seal. The ultimate responsibility for determining the location of expansion joints is with the Designer/Engineer/Builder.

### 5.12 Condensation & Moisture

Closed panel systems such as the **Unitex Base Board<sup>®</sup> Non-Cavity System** allow low levels of water vapour transmission. The primary advantage of the **Unitex Base Board<sup>®</sup> Non-Cavity System** is the resistance to water penetration in the first instance. This EIFS system does not negate the need for breathable sarking wrap, which acts as a last line of defence for moisture ingress. Sarking is supplied as part of the builder's works and should be as specified by the building designer. Unitex recommends sarking be either kraft-based paper complying with AS 4200.1-2017, or breather-type membranes covered by a valid BRANZ Appraisal for use as wall wraps.

### 5.13 Other Fixtures

Light weight fixtures can be attached to the finished wall using toggle bolts however it is essential that additional wall framing be installed to support heavier attachments such as awnings.

## 5.14 Dissimilar Materials



Where Uni-Base Board Non-Cavity System meets with another type of building material such as brickwork, each building material may have a different rate of expansion to the other material. Expansion joints are essential. A vertical expansion joint is cut along the vertical, a Becker Rod is placed in the cut and Uni-Shape Sealant (polycarbonate mastic) provides a weatherproof seal.

## 6. Technical Appraisal

The Unitex Base Board<sup>®</sup> Non-Cavity System has been appraised by BRANZ [Appraisal No. 758 (2018)].

A copy of the Appraisal is available for download from the BRANZ website [www.branz.co.nz](http://www.branz.co.nz) and the Australian Institute of Building Surveyors website [http://aibs.worldsecuresystems.com/partners/branz\\_appraisals](http://aibs.worldsecuresystems.com/partners/branz_appraisals). Additional supporting information on the material and physical properties of the Unitex Base Board<sup>®</sup> Cavity System is available by contacting Sto Australia Pty Ltd.



## 7. Safety and Handling

### 7.1 Handling of Uni-Base Board®

Uni-Base Board® sheets have the great advantage of being relatively light and in most situations are able to be handled by one person. There are however some cautions that are similar to those when handling roof sheets. Being a large flat panel, under windy conditions the panel can be caught by the wind whilst being carried and be pulled out of the person’s hands potentially causing imbalance and falling. The falling panel could cause serious damage to people below. It is strongly recommended that Uni-Base Board® sheets not be installed under windy conditions where there is potential for this hazard. As with all construction, a risk assessment should be carried out with site personnel prior to installation and included in the contractor’s site JSA. For storage and transport purposes, the panels should be stacked flat and in the case of transport, suitably restrained to stop wind getting under the sheets causing them to fly off the pack. Crushing of the edge of the sheet with ropes can be avoided by the use of heavy folded cardboard made into an angle.

Whilst Uni-Base Board® is coated with a weather-resistant render, the wall should be rendered as soon as possible after installation. Prolonged exposure of uncoated polystyrene foam at corners or on cuts can alter the physical appearance in that expanded foam cells can degrade to yellowish powder which must be wire-brushed away.

### 7.2 Transport & Storage

Powder products must be kept dry, elevated off the floor and preferably on pallets. Pastes must be stored at between 10°C and 35°C in unopened pails.

**Table 8. Safety and Handling of Unitex® Renders and Applied Texture Finishes**

| Product | Hazardous? | Dangerous Goods? | Conditions to avoid | Recommended PPE |
|---------|------------|------------------|---------------------|-----------------|
|         |            |                  |                     |                 |

|                        |                               |    |                                                           |                                                |
|------------------------|-------------------------------|----|-----------------------------------------------------------|------------------------------------------------|
| Unitex® Polymer Render | No but with cement added, Yes | No | Dust when adding cement<br>Ingestion,<br>Spills into eyes | Dust masks, eye protection, gloves, dust coats |
|------------------------|-------------------------------|----|-----------------------------------------------------------|------------------------------------------------|

|                                 |     |    |                                        |                                                |
|---------------------------------|-----|----|----------------------------------------|------------------------------------------------|
| Uni Dry Cote® Base Board Render | Yes | No | Dust,<br>Ingestion<br>Spills into eyes | Dust masks, eye protection, gloves, dust coats |
|---------------------------------|-----|----|----------------------------------------|------------------------------------------------|

|                  |    |    |                                                                 |                                    |
|------------------|----|----|-----------------------------------------------------------------|------------------------------------|
| Uni Décor® range | No | No | Ingestion<br>Spills into eyes, Avoid product drying on the skin | eye protection, gloves, dust coats |
|------------------|----|----|-----------------------------------------------------------------|------------------------------------|

|                     |     |    |                                        |                                                |
|---------------------|-----|----|----------------------------------------|------------------------------------------------|
| Uni Dry Cote® range | Yes | No | Dust,<br>Ingestion<br>Spills into eyes | Dust masks, eye protection, gloves, dust coats |
|---------------------|-----|----|----------------------------------------|------------------------------------------------|

|          |    |    |                                                                 |                                    |
|----------|----|----|-----------------------------------------------------------------|------------------------------------|
| Uni-PTC® | No | No | Ingestion<br>Spills into eyes, Avoid product drying on the skin | eye protection, gloves, dust coats |
|----------|----|----|-----------------------------------------------------------------|------------------------------------|

**Please refer to Safety Data Sheets available on [www.unitex.com.au](http://www.unitex.com.au)**

### 7.3 First Aid Measures

**Dust.** Avoid inhalation of any dusts encountered when using these products. Wear a suitable respiratory protection mask, avoid prolonged skin contact with wet mortars and wear goggles to limit eye contact.

Wear protective clothing to minimise skin contact.

#### Ingestion

If swallowed, wash out mouth with water. Do NOT induce vomiting. Drink at least two glasses of water. Seek medical attention.

#### Eyes

Wash with copious amounts of water for 15 minutes holding eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek medical attention.

#### Advice to Doctor

Treat symptomatically.

## 7.4 Health and Safety

### Think Safe, Act Safe

To assist in maintaining a safe and healthy workplace, take note of the following:

Ensure the workplace is safe. This includes attention to plant and equipment.

Insist that safe work methods are practiced.

Provide supervision and training where appropriate.

Ensure that everyone on site understands and accepts their responsibilities to promote a workplace that is safe.

Ensure that all health and safety requirements are adhered to.

Consult your authorised Workplace Health and Safety Officer for specific advice

## 8. Warranty

### Unitex Base Board® system for peace of mind

#### Unitex Base Board® Non-Cavity System for peace of mind

**Unitex Base Board® Non-Cavity System** is quick and easy to install but relies on a team effort:

- Quality Substrate (by Builder)
- Quality System (by Unitex)
- Experienced and trained Tradespeople (to finish)

So when **the Unitex Base Board® Non-Cavity System** is installed as above with all the nominated Unitex products as described in this Manual, Unitex® backs up with a seven year warranty.

Unitex® provides a seven-year warranty for defective product only (product replacement only) against the **Unitex Base Board® Non-Cavity** complete system, providing the components are of the quality specified and are applied strictly according to the guidelines laid down in this Manual. This Manual must be read and understood before installing the **Unitex Base Board® Non-Cavity System**. Unitex® cannot be held responsible, and hence no warranty applies, if **Unitex Base Board® Non-Cavity System** and its components are not supplied and installed according to the guidelines.

The selection of an Applicator to install the **Unitex Base Board® Non-Cavity System**, is the client's responsibility. However, Unitex® recommends that only Unitex trained and endorsed building contractors and applicators should install all components and accessories of the Unitex Base Board Non-Cavity System for a CodeMark compliant construction. Training sessions are held at regular intervals in all Australian major cities. Contact with the Sales team at Unitex is the first step for a potential endorsed building contractor and applicator. Previous workmanship on a minimum of three recently jobs should be checked first-hand by the client before selecting a suitable contractor/applicator.

As advised above, insufficient or inadequate construction of expansion/contraction joints could lead to cracking of the **Unitex Base Board® Non-Cavity System**. We reaffirm that, whilst we

provide recommendations as to their locations and treatment in **Unitex Base Board<sup>®</sup> NonCavity System**, this is not covered by the warranty. The placing of control joints is ultimately the responsibility of the Builder/Engineer/Specifier and not Unitex<sup>®</sup>.

Warranty is null and void if product is not installed in accordance with the guidelines set out in this Specification or if any non-approved Unitex<sup>®</sup> product is used. All Warranties are site specific and are based on documented complete system delivery to site.

## Disclaimer

The information and recommendations contained herein are based on tests and data believed to be reliable and are issued for your guidance. However, we cannot accept any responsibility for the results as the use and application of the products is beyond our control.

## Confidence and trust

For your peace of mind the Uni-EIFS systems by Unitex have been supplied and installed in Australia since 1983 with excellent results. The Unitex team are proud of having over 35 years of experience and knowledge in EIFS projects without any guarantee claims.

Both Unitex Base Board Non-Cavity and Unitex Base Board Cavity Systems are finished with our proven range of weatherproof protective coating systems. Over 5 million square metres of external wall in Australian homes and commercial projects have been protected from our harsh, seasonal weather conditions by Unitex.

Our experienced Unitex technical representatives are on call to visit your site and advise on correct installation, texture and colour. And the all-important site related technical issues.

## Free Plan Collection and Quotation Service

Freecall 1800 647 374 and a Unitex technical representative will supply a quote. Unitex can quote supply only or arrange for a supply and install quote from an approved applicator.

## Specifier's Clause:

The external facade (insulating lightweight cladding) shall be the Uniitex Base Board™ System (Low Build) as detailed in the Unitex Base Board™ Manual (dated November 2018). It shall have the following characteristics:

1. Soft-body Impact Strength minimum of 20 joules.
2. Minimum coating thickness of the Unitex Base Board system is to be no less than 5 mm covering the washers.
3. Edge and Sill Reveals protected with Uni-Mesh IM250 and Uni-304 Angle.
4. A 'complete wall' R-value tested result of minimum 2.0 (based on 75 mm thick EPS foam fitted over typical stud framing).
5. Expansion Joints to be specified to allow for normal substrate movement.

It shall be supplied by Unitex Granular Marble Pty Ltd and shall be installed as per the Unitex Base Board™ Manual by skilled tradespeople. Contact details: Email [sales@unitex.com.au](mailto:sales@unitex.com.au) / Telephone +61 3 9768 4900.

The information contained in this document is based on data available at November 2018, which we believe is accurate and reliable. Unitex reserves the right to change the information without prior notice.



