

### GTEK™ BARRIER COMMERCIAL



### WHY GTEK™?

WITH OUR GTEK™ RANGE OF INTERIOR LINING PRODUCTS, YOU BENEFIT FROM SUSTAINABLE, QUALITY-TESTED TECHNOLOGY, FULL BGC INTERIOR LINING SYSTEMS COMPATIBILITY AND OUR CLASS-LEADING SERVICE NETWORK.

- **TECHNOLOGY /** Light, modular GTEK™ technology eases installation for seamless results
- **SERVICE /** Vast distribution network assures best-in-class service delivery
- QUALITY / Independent testing accords with Australia's toughest build-quality accreditations
- **SYSTEMS /** Full compatibility with extensive BGC interior lining systems range

### **CONTENTS**

### GTEK™ BARRIER

- PAGE\_04. **Product Information**
- Where can GTEK™ Barrier be used?
- PAGE\_\_06. Early Fire Indices
- Accessories
- Abrasion Resistance PAGE\_07.
- PAGE\_\_08-10. Wall Options
- PAGE\_\_11.
  PAGE\_\_12.
  PAGE\_\_13-14.
- Noggings Plumbing and Electrical Services
- Installation Details
- PAGE\_\_15-17.
- PAGE\_\_18.
- Finishing Tiled Areas Finishing Non Tiled Areas Painting Non Tiled Areas Cleaning and Maintenance PAGE\_\_19.
- PAGE 20. Warranty







GTEK™ Barrier incorporates next generation high performance lining technology that provides superior performance in wet and high humidity areas. Its superior abrasion resistance also means it is ideal in high traffic areas when not tiled.



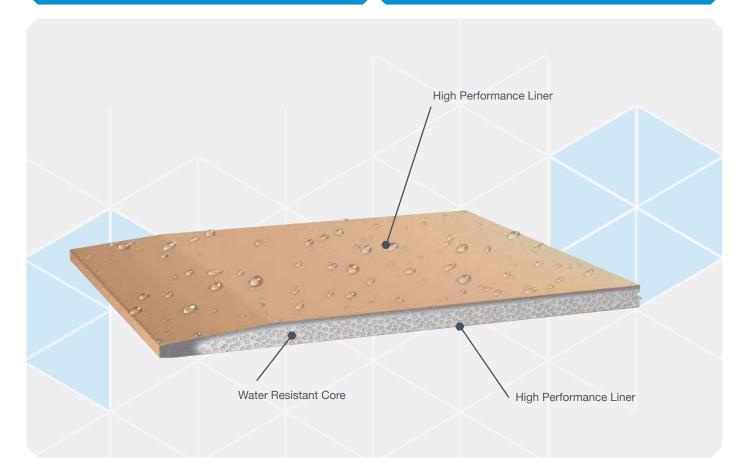
GTEK<sup>™</sup> Barrier is ideal as a substrate under tiles in both residential and commercial applications.

### What's great about GTEK™ Barrier:

- ▶ High performance liner on the face and back provides superior moisture and humidity resistance
- ▶ Suitable for wall applications as a substrate under tiles
- ► Provides superior tile adhesion
- ▶ High performance liner means that has superior abrasion resistance making it ideal for high traffic areas when not tiled
- ► Lightweight and installed in the same method as traditional wet area plasterboard
- ► Easier to cut, fasten and install penetrations for pipes and taps than other wet area tile substrates
- ▶ 35kg/m² tile carry weight capacity



### WHAT IS GTEK™ BARRIER



### PRODUCT INFORMATION

GTEK<sup>TM</sup> Barrier has been purposefully designed as a substrate for tiles in high humidity areas in commercial buildings, such as sports arenas, commercial kitchens and laundries, toilets, shower enclosures and cleaning room areas.

The high-performance liner also means that  $\mathsf{GTEK}^\mathsf{TM}$  Barrier has excellent abrasion resistance making it a perfect solution for high traffic areas.

GTEK™ Barrier is to be installed in accordance with AS/NZS 2589 "Gypsum Plaster Linings in Residential and Light Commercial Construction - Application and Finishes" and as detailed in AS3740 "Waterproofing of Wet Areas within Residential Buildings". GTEK™ Barrier complies with the requirements of AS/NZS 2588 'Gypsum Plasterboard'.

GTEK™ Barrier has an orange high performance face and back liner for easy identification. It is available in 10mm and 13mm thicknesses with recessed edges.

GTEK™ Barrier has a low absorption core, eliminates the probability of water wicking, therefore preventing possible damage to the supporting structure and wall finishes.

### **TILING**

GTEK<sup>TM</sup> Barrier is a wall lining that has primarily been designed as a substrate for tiling applications. Tiles should be installed as per manufacturers recommendation and tile weight should not exceed  $35 \text{kg/m}^2$  – see page 8-9. If stone tiles are used, careful consideration must be given to framing and installation as stone absorbs moisture increasing their weight by 15%.

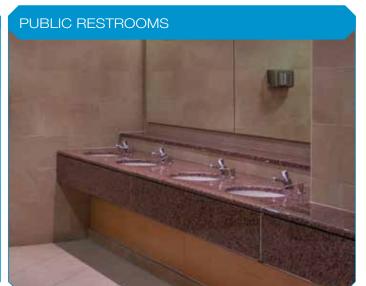
### FINISHING PAINTING

In non-tiled areas, consideration must be given to the difference in texture of the woven liner on GTEK<sup>TM</sup> Barrier when compared to standard paper faced plasterboard. To achieve a consistent surface finish on GTEK<sup>TM</sup> Barrier follow the paint system guidelines on Page 19.

### WHERE CAN GTEK™ BARRIER BE USED?

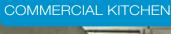






CAFES AND RESTAURANTS







SPORTS HALL/ARENA





### **EARLY FIRE INDICES**

GTEK™ Barrier has been tested by Cetec Professional Scientific Solutions for fire resistance in accordance with AS/NZS 1530.3.

- Ignitability Index
  Spread of Flame Index
- 0
- Heat Evolved Index
- 0
- Smoke Developed Index
  - 4

GTEK™ Barrier is a Group1 material.

### FIRE RESISTANCE

Plasterboard is naturally fire resistant and is classified as non-combustible according to the Building Code of Australia (BCA) Section C1.12.

### DIMENSIONAL STABILITY

Plasterboard is dimensionally stable when compared to other building materials. Two measures of dimensional stability are listed below:

- ► Thermal coefficient of linear expansion = 16.7 x 10-6 /C, measured unrestrained over the temperature range of 3°C - 32°C
- ► Hygrometric coefficient of expansion 6.5 x 10-6 /%RH, measured unrestrained over the Relative Humidity (RH) range of 10% - 90%

### THERMAL PROPERTIES

The R value of plasterboard is a measure of its thermal insulation ability. Higher numbers indicate a better insulator. The 'R' values for plasterboard are:

- ▶ 10mm plasterboard = 0.05Km2/W
- ▶ 13mm plasterboard = 0.05Km2/W

### HANDLING & STORAGE

GTEKTM Barrier should be stacked flat, up off the ground and supported on level, equally spaced (max 450mm) gluts.

Care should be taken to ensure edges of the GTEK  $^{\text{TM}}$  Barrier are not damaged when handling.

GTEKTM Barrier should be delivered to site immediately prior to installation to reduce the risk of damage.

As per AS/NZ 2589 – The area to be lined or partitioned shall be protected from the weather and sufficiently dry to ensure that the fixed gypsum lining will not suffer subsequent deterioration due to moisture absorption.

### TABLE 1 - SIZE AND WEIGHT

| THICKNESS | WEIGHT  | WIDTH | LENGTH (mm) |      |
|-----------|---------|-------|-------------|------|
| (mm)      | (kg/m²) | (mm)  | 3000        | 3600 |
| 10        | 8.2     | 1200  | ✓           | ✓    |
| 13        | 9.2     | 1200  | ✓           | ✓    |

Other sizes available at minimum order quantities. Please speak with your local GTEK  $^{\rm TM}$  representative.

### TABLE 2 – ACCESSORIES SUPPLIED BY BGC PLASTERBOARD

| Tescon Extora®<br>Weather tight Sealing Tape | 60mm x 30m | BGC<br>PRODUCT CODE<br>1938     |   |
|--|------------|---------------------------------|---|
| BGC Exterior and<br>Wet Area Base Coat       | 13kg       | BGC<br>PRODUCT CODE<br>BGCEBC13 | Lister  SSC Exterior A  Ver Anus Elacie Cost  1;5KG |
| BGC Exterior and<br>Wet Area Top Coat        | 12kg       | BGC<br>PRODUCT CODE<br>BGCETC12 | Text Society & Wet Area Tops Cont                   |

### **ABRASION RESISTANCE**

The enhanced abrasion resistance properties of GTEK™ Barrier make it suitable for high abrasion areas.

### ABRASION RESISTANCE TEST

The abrasion resistance test was conducted in accordance with ASTM D4977/D4977M. A brush with bristles is used to abrade the surface of the specimen.

The depth of the surface of boards after abrasion and mass loss were measured and recorded.





### WALL OPTIONS - TILED AREAS - HORIZONTAL INSTALLATION

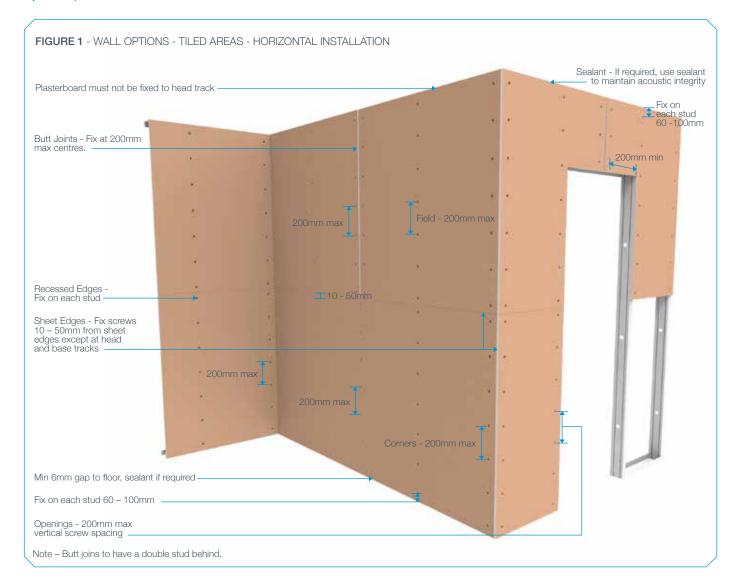
Steel framing from any manufacturer can be used when installing GTEK™ Barrier. However, it must meet the requirements of the chosen framing manufacturer. Below is an example set-out provided by Rondo. CFS light steel framing must be in accordance with AS/NZS 4600 'Cold-Formed Steel Structure Code'.

### GTEK™ Barrier 10mm and 13mm

- ► Wall height up to 3600mm
- Studs 92 x 0.75BMT at 450mm centres for 10mm GTEK™ Barrier
- ➤ Studs 92 x 0.75BMT at 600mm centres for 13mm GTEK™ Barrier
- ▶ Wind loadings: Ultimate: 0.375 kPa & Serviceability: 0.250 kPa
- Maximum tile weight 35kg/m² (including glue & membrane)
- Deflection limit = span/360
- ► Fasteners: Around perimeter and openings at 200mm centres
- Fasteners: Tile weight up to 22kg/m² body of sheet 200mm centres
- Fasteners: Tile weight up to 35kg/m² body of sheet 100mm centres
- Butt joins to have a double stud behind

### Lining options:

- A. Lined both sides: 10mm or 13mm GTEK™ Barrier with tiles on both sides – noggings not required
- ▶ B. Lined one side: 10mm or 13mm GTEK<sup>†M</sup> Barrier with tiles with 3 rows of fast-fix nogging (including the additional nogging row 100mm from top)



### WALL OPTIONS - TILED AREAS - VERTICAL INSTALLATION

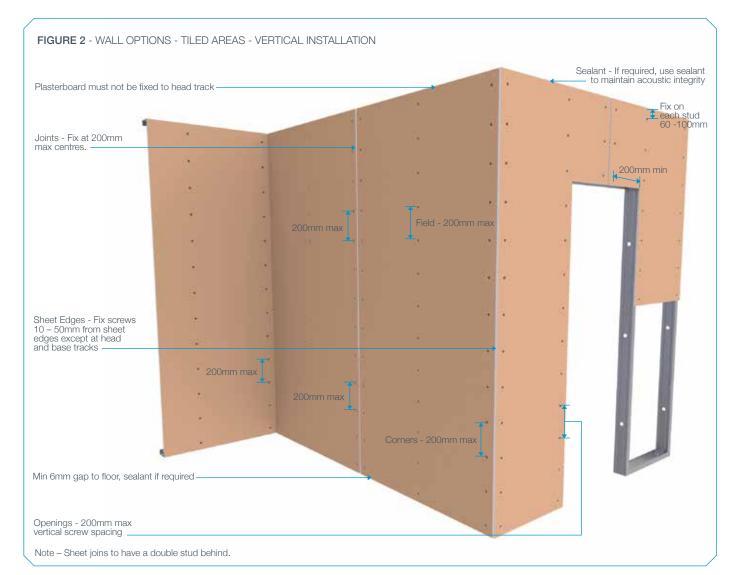
Steel framing from any manufacturer can be used when installing GTEK™ Barrier. However, it must meet the requirements of the chosen framing manufacturer. Below is an example set-out provided by Rondo. CFS light steel framing must be in accordance with AS/NZS 4600 'Cold-Formed Steel Structure Code'.

### GTEK™ Barrier 10mm and 13mm

- Wall height up to 3600mm
- ➤ Studs 92 x 0.75BMT at 450mm centres for 10mm GTEK™ Barrier
- Studs 92 x 0.75BMT at 600mm centres for 13mm GTEK™ Barrier
- ▶ Wind loadings: Ultimate: 0.375 kPa & Serviceability: 0.250 kPa
- Maximum tile weight 35kg/m² (including glue & membrane)
- Deflection limit = span/360
- Fasteners: Around perimeter and openings at 200mm centres
- Fasteners: Tile weight up to 22kg/m² body of sheet 200mm centres
- ➤ Fasteners: Tile weight up to 35kg/m² body of sheet 100mm centres
- > Sheet joins to have a double stud behind

### Lining options:

- C. Lined both sides: 10mm or 13mm GTEK™ Barrier with tiles on both sides – noggings not required
- ▶ D. Lined one side: 10mm or 13mm GTEK<sup>™</sup> Barrier with tiles with 3 rows of fast-fix nogging (including the additional nogging row 100mm from top

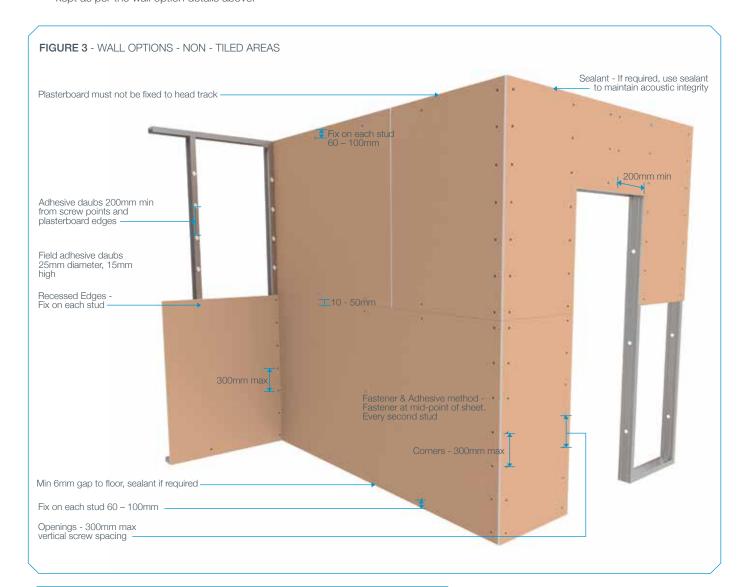




### WALL OPTIONS - NON - TILED AREAS

### GTEK™ Barrier 10mm and 13mm

- > Studs min 0.55 BMT at 600mm centres max.
- All frame details to follow manufacturers guidelines.
- GTEK™ Barrier can be installed in both horizontal and vertical orientations providing that the stud and fasteners spacings are kept as per the wall option details above.



### FASTENER AND ADHESIVE PATTERN IN NON TILED AREAS WIDTH (mm) HORIZONTAL INSTALLATION VERTICAL INSTALLATION FASTENER (x) AND ADHESIVE (o) x 0 at 300mm centres 1200 x mid point 0 at 300mm centres x x FASTENER (x) ONLY x at 300mm centres 1200 xxxxxx x at 300mm centres

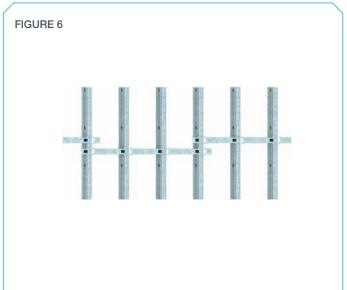
### NOGGINGS

Standard nogging from a relevant manufacturer can be used when installing GTEK™ Barrier, however, use of Fast Fix nogging from Rondo may speed up installation time.

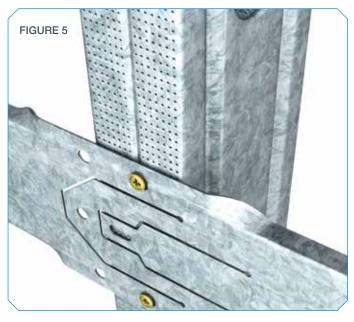
This is installed **after** the framing is complete. The primary fixing method is to use the bend out tab as shown in Figure 4, the tab being scored at the bend points, and screw fixed with a #8 wafer or lost head screw.

These noggings are not used continuously but are staggered, one up one down as shown in Figure 6.





However, for simple full height stud walls lined both sides or one side, the face fix method can be used as shown in Figure 5.



Images supplied by Rondo Building Services Pty Ltd.

### TIMBER NOGGINGS

Timber or plywood noggings are often installed in a steel stud wall to provide support for a variety of additional fittings. Adhere to framing manufacturers recommendations when installing additional fittings.



### PLUMBING OR ELECTRICAL SERVICES

Copper or brass fittings should be isolated from direct contact with the steel framing. This can be achieved by insulating the piping with neoprene sheeting or tape, or by lagging the pipe.

Where the pipe is running through the service holes of the studs, plastic grommets should be used to isolate the pipe and prevent water hammer.

Similar care, in isolating the framing, should be taken when contact with dissimilar metals is possible – typically where lead flashing is used in the construction.

Electrical services can be run through the service holes of the 0.75BMT studs without requiring grommets, due to the unique flaring of the service holes.

Generally, services are run through the pre-punched service holes.

## Recessed services bracket, Tek screw or pop rivet in place Isolate copper and brass fittings from coated steel framing Timber noggings do not need isolating

### **DRILLING**

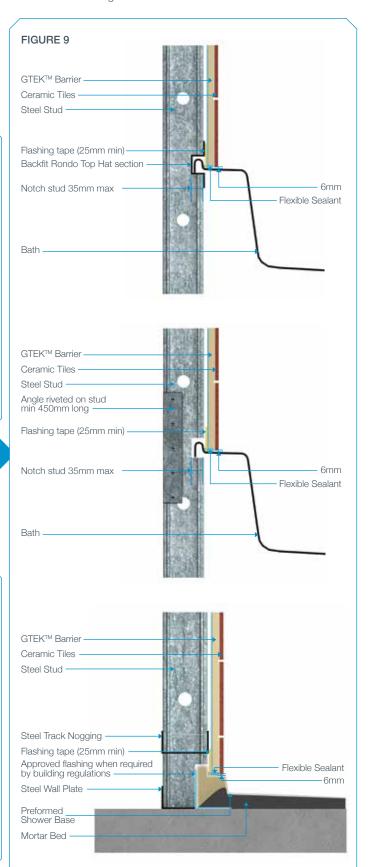
Where extra service holes are required they may be positioned using a hole saw or similar and grommets should be fitted.

Additional service holes should be positioned as close as practical to the centreline of the stud (refer figure 8). The maximum hole diameter should not exceed 50mm for a 92mm stud.

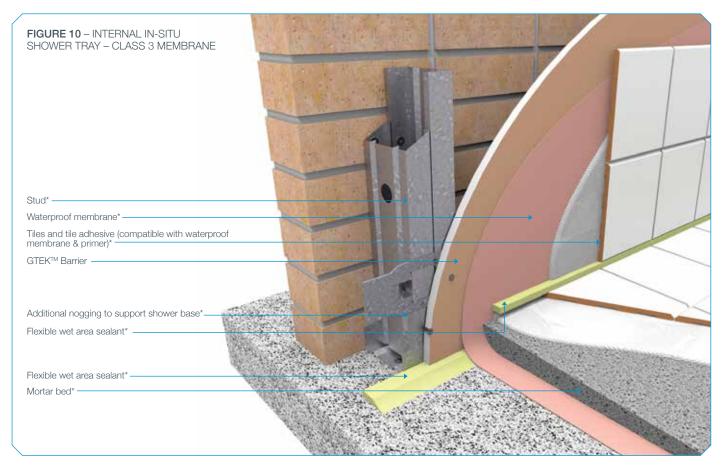
# PIGURE 8 2 'D' min (D150mm) 3 'D' min (D<150mm) Minimum edge distance 20mm Maximum length of 'D' Minimum clear spacing of 3 'D'

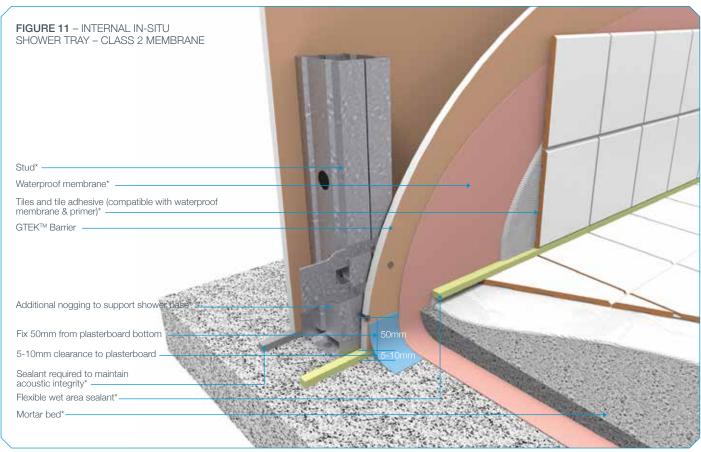
### **NOTCHING**

Notching of the studs should not exceed 35mm under any circumstances. Notching of the studs should be in accordance with the detail in figure 9.



### **INSTALLATION DETAILS**

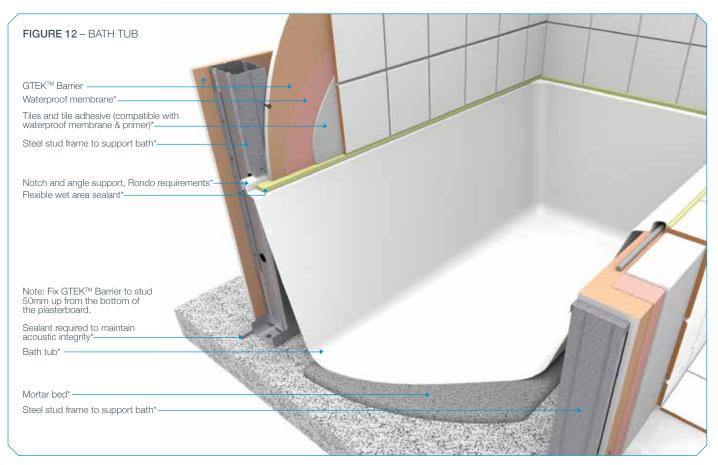


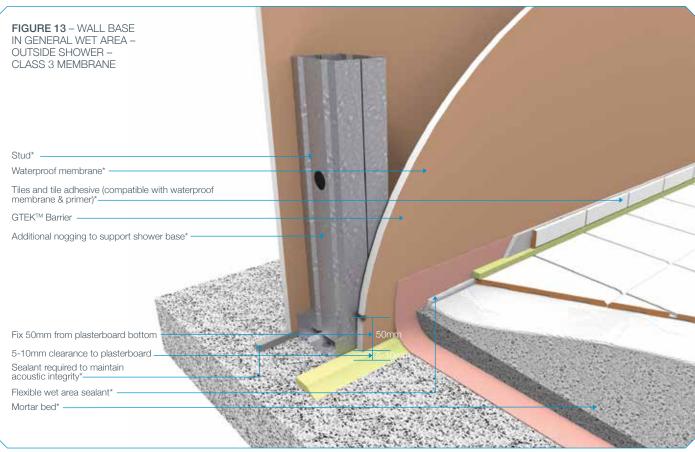






### **INSTALLATION DETAILS**



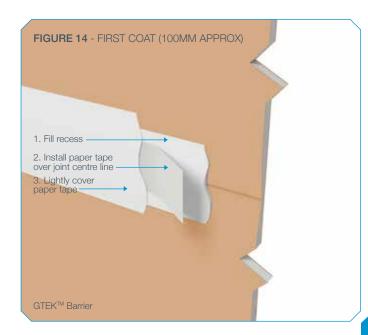


### FINISHING - TILED AREAS

When finishing GTEK™ Barrier in tiled areas, there are 2 options recommended by BGC Plasterboard.

### OPTION 1 - FIRST COAT AND TAPE

- Wipe joint recesses with damp cloth to remove dust from the face of GTEK™ Barrier
- ► Fully fill recess evenly with BGC Exterior and Wet Area Base Coat
- Centrally bed the paper tape into bed coat and cover lightly with GTEK™ Exterior and Wet Area Base Coat and allow to fully dry
- Cover all fastener points with BGC Exterior and Wet Area Base Coat and allow to fully dry



Once the 1st coat and taping has been completed and allowed to fully dry a coat of Primer needs to be applied to the entire face of the GTEK  $^{\text{TM}}$  Barrier.

### **SEALING PENETRATIONS**

GTEK™ Barrier must be cut out to leave a 6mm gap all around the fixture. This gap must be filled with a mould resistant flexible sealant.

BGC recommends using a hole saw to make a neat cut out for fittings such as taps, pipes etc. Do not use a hammer.

Additional framing must be installed as required to properly support all fixtures.



### PRIMER, MEMBRANE AND TILE ADHESIVE

A compatible primer, membrane and tile adhesive system suitable for plasterboard should be used. These materials should be sourced from the same manufacturer who will warrant the materials and systems that are applied. Do not mix and match any products between manufacturers.

Below are a list of manufacturers/suppliers that can provide compatible, warranted and cost-effective systems.

- Ardex www.ardexaustralia.com
- Davco www.davcoaustralia.com.au
- Sika www.sika.com
- Mapei www.mapei.com
- ▶ RLA Polymers www.rlapolymers.com.au
- ▶ Westbuild Products Pty Ltd www.westbuildgroup.com.au
- **Dunlop –** www.dunlopdiy.com.au

### **TILES**

Install tiles as per manufacturer's recommendations.



### OPTION 2 - TESCON EXTORA® WEATHER TIGHT SEALING TAPE

TESCON EXTORA® tape is a weather tight sealing tape which is easy to cut with a knife and ideal for use with GTEK™ Barrier in areas that are to be tiled.

### **PREPARATION**

The GTEK<sup>TM</sup> Barrier should be dry, smooth and free from dust, silicon and grease. Brush down the GTEK<sup>TM</sup> Barrier or wipe with a cloth if necessary.

### WINDOW CONNECTION

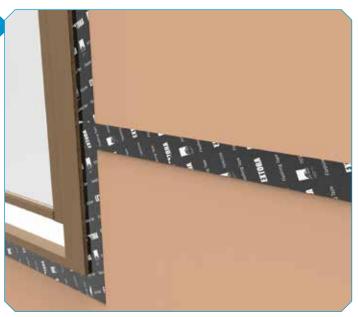
Seal the GTEKTM Barrier to the joinery using TESCON EXTORA® tape to ensure the connection is waterproof.

### SHEET JOINTS

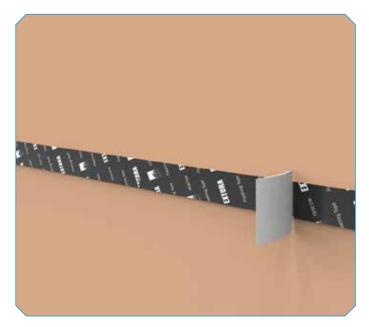
Place the TESCON EXTORA  $\!\!\!^{\otimes}$  centrally over the joint, unroll and press down over the joint.



Press firmly to secure the tape ensuring there is sufficient pressure applied.



TESCON EXTORA® is a pressure sensitive tape that requires sufficient pressure to activate the adhesive. Always ensure you use a PRESSFIX® (or a 100mm joint knife or similar if a PRESSFIX® is not available) when installing TESCON EXTORA® to activate the adhesive and achieve a permanent bond. Please be aware, once the adhesive has been activated, the tape cannot be removed.



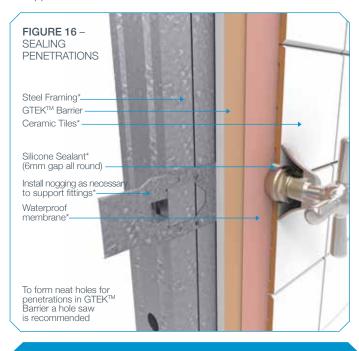
### OPTION 2 - TESCON EXTORA® WEATHER TIGHT SEALING TAPE

### **SEALING PENETRATIONS**

GTEK™ Barrier must be cut out to leave a 6mm gap all around the fixture. This gap must be filled with a mould resistant flexible sealant.

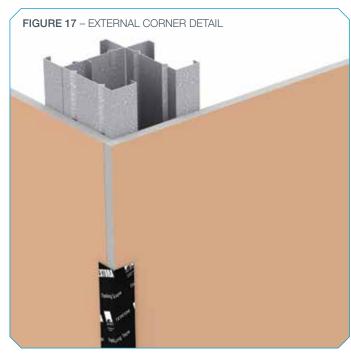
BGC recommends using a hole saw to make a neat cut out for fittings such as taps, pipes etch. Do not use a hammer.

Additional framing must be installed as required to properly support all fixtures.



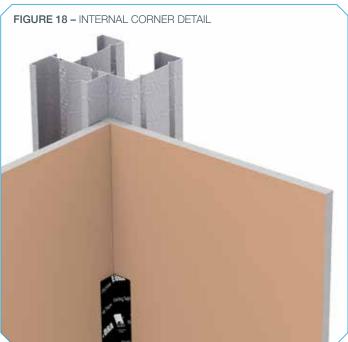
### EXTERNAL CORNER

Place the TESCON EXTORA® centrally over the join, unroll and press down firmly on each side of the external corner.



### INTERNAL CORNER

Place the TESCON EXTORA® centrally over the join, unroll and press down firmly on each side of the internal corner.



TESCON EXTORA® tape is a pressure sensitive tape and that sufficient pressure is required to activate the pressure sensitive adhesive and guarantee a long-term durable seal. Once sufficient pressure has been applied TESCON EXTORA® cannot be moved.

### PRIMER, MEMBRANE AND TILE ADHESIVE

A compatible primer, membrane and tile adhesive system suitable for plasterboard should be used. These materials should be sourced from the same manufacturer who will warrant the materials and systems that are applied. Do not mix and match any products between manufacturers.

Below are a list of manufacturers/suppliers that can provide compatible, warranted and cost-effective systems

- Ardex www.ardexaustralia.com
- Davco www.davcoaustralia.com.au
- Sika www.sika.com
- Mapei www.mapei.com
- RLA Polymers www.rlapolymers.com.au
- ▶ Westbuild Products Pty Ltd www.westbuildgroup.com.au
- **Dunlop** www.dunlopiy.com

### **TILES**

Install tiles as per manufacturers recommendations.

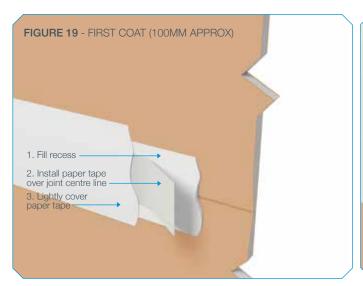
### FINISHING - NON - TILED AREAS

### FIRST COAT AND TAPE

- Wipe joint recesses with damp cloth to remove dust from plasterboard face
- Fully fill recess evenly with BGC Exterior and Wet Area Base Coat
- Centrally bed the paper tape into bed coat and cover lightly with BGC Exterior and Wet Area Base Coat and allow to fully dry
- Cover all fastener points with BGC Exterior and Wet Area Base Coat and allow to fully dry

### FINISH COAT

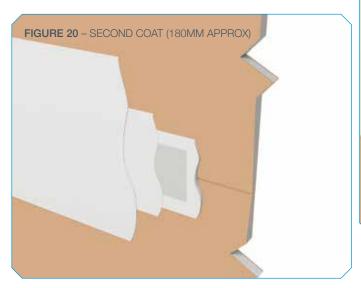
- Apply a 280mm wide approximate, thin finish coat of BGC Exterior and Wet Area Top Coat, centrally over the second coat
- Apply a thin finish coat over all fastener points and feather out 40mm and allow to dry





### SECOND COAT

- Apply the second coat of BGC Exterior and Wet Area Base Coat 180mm wide and feather out the edges and allow to fully dry
- Apply a second coat to all fastener points, feather out 25mm and allow to fully dry



### SANDING AND FINISHING

 Allow BGC Exterior and Wet Area Top Coat to dry for 24 hrs before sanding



### PAINTING - NON - TILED AREAS

### **PREPARATION**

Ensure the surface is clean, dry and free of all loose material. Fill any holes or surface imperfections with a GTEK™ Compound and sand once set.

### **APPLICATION**

In non-tiled areas, consideration must be given to the difference in texture of the non-woven liner on GTEK $^{\text{TM}}$  Barrier when compared to standard paper faced plasterboard.

To achieve a consistent surface finish on GTEK™ Barrier the following paint system is recommended:

- ▶ Roller 32mm nap synthetic roller sleeve.
- ▶ 1st Coat Dulux Professional Total Prep
- 2nd Coat Dulux Wash & Wear + Plus Kitchen and Bathroom
- 3rd Coat Dulux Wash & Wear + Plus Kitchen and Bathroom

It is important to follow all instructions as provided by the paint manufacturer.

Following this paint recommendation will provide a textured appearance across the surface of the GTEK™ Barrier installation. The complete system will provide the end user with a high-performance wet area plasterboard system that provides superior performance in high humidity environments.

### **CLEANING AND MAINTENANCE**

Maintain the finished surface, keeping the surface clean and free of build up or residue.

Repair and maintain joints, junctions, tiles and grout that are damaged or deteriorated.

Ensure membranes are not prejudiced in any way as damage to these may result in diminished performance and leakage.



### CONTACT

TO CONTACT YOUR NEAREST BGC STOCKIST, PLEASE CALL:

ADELAIDE TELEPHONE 08 8480 1700

BRISBANE TELEPHONE 07 3183 8100

MELBOURNE TELEPHONE 03 9492 1700

PERTH TELEPHONE 08 9334 4900

SYDNEY TELEPHONE 02 8107 9500

TECHNICAL HELP LINE 1300 652 242

### Ouality Sol Ground Sal Grobar

### GTEK™ PRODUCT RANGE

- ▶ GTEK<sup>TM</sup> Wall is an interior wall lining system where cost effectiveness and economy of effort is crucial.
- ► GTEK™ Curve flexible plasterboard enables the creative execution of curves on interior walls and ceilings.
- ▶ GTEK™ Ceiling is a 10mm plasterboard sheet designed specifically for ceiling use where joists are at 600mm.
- ➤ GTEK™ Fire is used in fire-rated systems, consisting of single or multiple layers of board.
- ► GTEK<sup>TM</sup> Fire & Wet Area is designed for use in wet areas governed by fire resistance limitations (FRLs).
- ► GTEK<sup>™</sup> Wet Area is water-resistant plasterboard for walls in such wet areas as bathrooms, laundries, toilets and cleaning rooms.
- ▶ GTEK<sup>™</sup> Sound is high-density plasterboard specifically designed to reduce unwanted noise detectable through walls and ceilings.
- ➤ GTEK™ Impact is ideal for high-traffic areas where walls are subjected to regular stress.
- ► GTEK<sup>TM</sup> Total Plus offers marketleading fire, water, sound and impact resistance, together with GECA certification in recognition of high percentages of recycled materials.
- ▶ GTEK<sup>™</sup> Cornice adds exciting finishing touches to interior wall and ceiling joints in new builds and renovations.
- ► GTEK™ Barrier is the next generation high performance lining technology that provides superior performance in wet and high humidity areas.

### WARRANTY

We warrant that our products are free from defects caused by faulty manufacture or materials for a period of 15 years from the date of purchase. If you acquire any defective products, we will repair or replace them, supply equivalent replacement products or refund the purchase price within 30 days of receiving a valid claim subject to product inspection and confirmation of the existence of a defect by BGC. We will bear the cost of any such repair, replacement or refund.

This warranty is given by: BGC PLASTERBOARD PTY LTD
Ground Floor, 290 Bushmead Rd,
Hazelmere, WA 6055 Phone: (08) 9374 2900
Fax: (08) 9374 2901

To claim under this warranty, you must provide proof of purchase as a consumer and make a written claim (including any costs of claiming) to us at the address specified above within 30 days after the defect was reasonably apparent, or if the defect was reasonably apparent prior to installation, the claim must be made prior to installation. You may not claim under this warranty for loss or damage caused by:

- ▶ faulty or incorrect installation by non-BGC installers (BGC's installation procedures are at gtekplasterboard.com.au);
- ▶ failure to comply with the National Construction Code or any applicable legislation, regulations approvals and standards;
- products not made or supplied by BGC;
- abnormal use of the product; or
- normal wear and tear.

The benefits available under this warranty are in addition to other rights and remedies of the consumer under the law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Terms and Conditions

of the Agreement.

BGC Plasterboard's Terms and Conditions of Sale ("Agreement"), as in place and published at the date of this quote, which are available upon request or on our website at gtekplasterboard.com.au. The purchaser's terms and conditions, howsoever provided, do not form part

