



DURAFLOOR™ IS THE ULTIMATE FLOORING PRODUCT THAT CAN BE USED IN BOTH INTERIOR AND EXTERIOR APPLICATIONS.

DURAFLOOR™ IS IDEALLY SUITED TO INTERIOR WET AREAS AS WELL AS EXTERIOR PROJECTS.

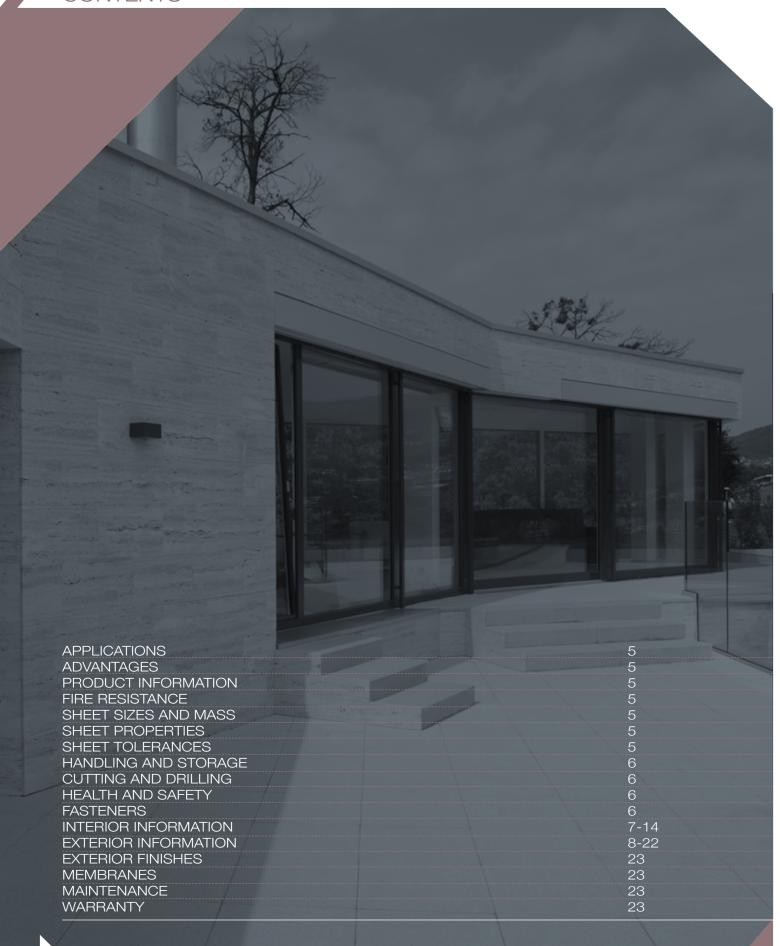
DURAFLOOR™

- / EASILY INSTALLED USING TRADITIONAL GUN NAILING METHODS
- / REDUCES INSTALLATION COSTS COMPARED TO STANDARD COMPRESSED SHEET
- / USES SAME TONGUE AND GROOVE TECHNOLOGY AS TRADITIONAL SHEET FLOORING SUCH AS STRUCTAFLOR
- / CAN BE USED IN INTERIOR WET AREAS
 - / BATHROOMS
 - / LAUNDRIES
- / CAN BE USED IN EXTERIOR APPLICATIONS
 - / BALCONIES
 - / VERANDAS
 - / SUN DECKS
- / OR AS A TOTAL FLOOR SOLUTION WHERE A PREMIUM PRODUCT IS REQUIRED
- / HAS GREATER IMPACT RESISTANCE AND FEELS MORE SOLID UNDER FOOT THAN TIMBER BASED SHEET FLOORING PRODUCTS





CONTENTS





APPLICATIONS

DurafloorTM is the perfect product to use for interior wet area projects such as bathrooms and laundries but is also ideal for use as the substrate for a variety of exterior decking applications such as above ground pool surrounds, verandas and balconies.

SHEET SIZES AND MASS

NOMINAL THICKNESS mm	MASS KG/M ²	WIDTH mm	LENGTH mm
19	24.7	600	2250

ADVANTAGES

- / A single product for interior and exterior projects
- / Tongue and groove system that fits well with particleboard flooring products
- / Easily installed using traditional gun nailing methods reducing installation costs
- / Has greater impact resistance and feels more solid under foot than timber based sheet flooring products

SHEET PROPERTIES

PROPERTY	at EMC*		
DENSITY	1300kg/m³		
MODULUS OF ELASTICITY	10 GPa		
FLEXURAL STRENGTH (CHARACTERISTIC)			
PARALLEL TO SHEET LENGTH			
Ultimate	25 MPa		
Yield	20 MPa		
PARALLEL TO SHEET WIDTH			
Ultimate	20 MPa		
Yield	16 MPa		
THERMAL EXPANSION			
Co-efficient	10 x 10-6k° (est Average)		
MOISTURE MOVEMENT			
From EMC* to saturated	Approx 700 Microstrains (expansion)		
From 30-90% RH	Approx 500 Microstrains (expansion)		
R Value (approx)	0.08		

PRODUCT INFORMATION

DurafloorTM is manufactured from Portland cement, finely ground silica, cellulose fibres and water. After forming it is compressed to a high density then cured in a high-pressure steam autoclave to create a durable, dimensionally stable product.

Durafloor™ is immune to permanent damage from water. It is impact resistant, immune to termite attack, non combustible and easy to work.

Durafloor™ is manufactured to conform to the requirements of AS2908 Cellulose Cement Products, and is classified as Type A Category 5 for external use.

FIRE RESISTANCE

BGC Fibre Cement products have been tested in accordance to Australian Standard AS1530.3.

These tests deemed the following Early Fire Hazard Indices:

/	Ignition Index	0
/	Spread of Flame Index	0
/	Heat Evolved Index	0
/	Smoke Developed Index	0-1

SHEET TOLERANCES

- / Width +0/-1mm
- / Length +0/-2mm
- / Thickness +0.5mm
- / Diagonals difference (max) 2mm
- / Edge straightness deviation (max) 1mm



HANDLING AND STORAGE

Durafloor™ must be stacked flat, up off the ground and supported on equally spaced level bearers at 450mm centres.

Durafloor™ must be kept dry, preferably by being stored inside a building. When stored outdoors it must be protected from the weather.

Care should be taken to avoid damage to the ends, edges and surfaces.

Durafloor™ must be dry prior to fixing, jointing or finishing.

QUALITY SYSTEMS

BGC Fibre Cement manufactures Durafloor™ under the rigorous Quality Management System of the International Standard ISO 9001, and is the holder of Licence Agreement number QEC2955/13.

CUTTING & DRILLING

 ${\sf Durafloor^{\sf TM}}$ can be cut to size on site. Either Tungsten Carbide or Diamond tipped tools are generally required.

For straight cuts BGC recommend the use of a BGC Durablade™ fitted to a 185mm circular saw, with a full dust extraction system.



HEALTH & SAFETY

Durafloor™ sheeting is manufactured from cellulose fibre, finely ground sand, Portland cement and additives. As manufactured the product will not release airborne dust, but during drilling, cutting and sanding operations cellulose fibres, silica and calcium silicate dust may be released.

Breathing in fine silica dust is hazardous, prolonged exposure (usually over several years) may cause bronchitis, silicosis or cancer

AVOID INHALING DUST

When cutting sheets, work in a well-ventilated area and use the methods recommended in this literature to minimise dust generation.

If using power tools for cutting drilling or sanding they must be fitted with appropriate dust collection devices or alternatively use an approved (P1 or P2) dust mask and wear safety glasses.

These precautions are not necessary when stacking, unloading or handling fibre cement products.

For further information or a Material Safety Data Sheet contact the nearest BGC Sales Office.

HOLES

For small holes a well-sharpened Tungsten Carbide masonry drill is recommended. Use a slow drill speed.

Do not use the drills hammer function.

For larger circular holes such as waste holes a Tungsten Carbide or diamond tipped hole saw is recommended.

Alternatively drill a series of small holes around the perimeter of the cut out, and then gently tap out the waste piece while supporting the underside of the opening to avoid damage. Clean up any rough edges with a rasp.

FASTENERS

DURAFLOOR™ TO TIMBER FRAME

Powers Muro M1063 - 10g x 50



Buildex SEH A.W Point - 10g x 45



Or similar Paslode HDG Coil Nail 45 x 2.5



All fasteners to be corrosion resistant- Class 3 minimum.

DURAFLOOR™ TO STEEL FRAME

Buildex Wingtek Screw 10g x 16 x 40





Powers Muro M1024 CSK Screw - 8g x 42





Or similar





WET AREA TILED FLOORS

Durafloor™ is ideally suited as a substrate for ceramic tiled floors in the wet areas such as bathrooms and laundries.

GENERAL

Satisfactory performance of wet area systems depends on strict adherence to the Building Code of Australia and the Australian Standard AS 3740-2010 "Waterproofing of wet areas within residential buildings".

FRAMING

Durafloor $^{\text{TM}}$ sheeting can be fixed to either timber or lightweight steel framing.

Timber framing must comply with AS 1684 "Residential Timber Frame Construction". Unseasoned timber must not be used.

Metal framing must comply with AS3623 "Domestic Metal Framing".

BGC recommend sheets to be laid with the long edge across the joists. (Figure 2).

Joist spacing must not exceed 450mm maximum centres.

In all cases a floor joist must support the sheet end.

For all applications the joist face width must be no less than 45mm min.

DURAFLOOR™	MAXIMUM JOIST	
NOMINAL THICKNESS mm	CENTRES	
19	450	

LOADING

Durafloor™ satisfies the loading requirements of AS/NZS1170.1 Table 3.1 Category A Domestic and Residential Activities Concentrated Loads 1.8kn @ UDL of 4KPA.

For higher load applications, BGC Compressed Sheet is recommended. Please contact your local BGC Fibre Cement office for further details, or refer to BGC Fibre Cement Compressed brochure.

FLOOR DRAINAGE

In wet areas lay mortar bed (screed) over the Durafloor $^{\text{TM}}$ to produce a minimum 1:60 fall to the waste drain.

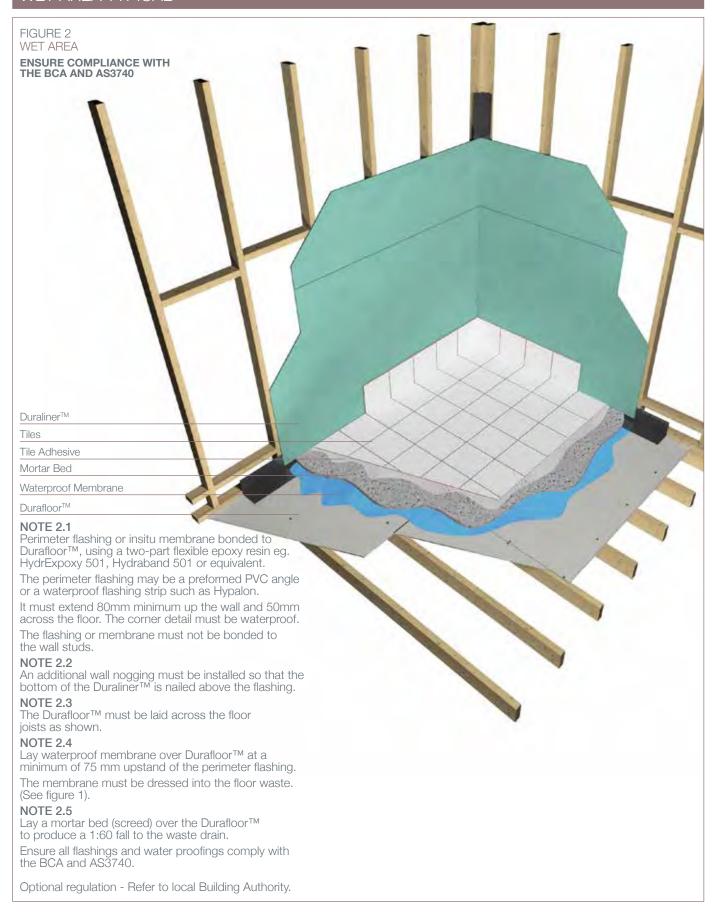
Figure 1 depicts a typical floor waste installation showing the waterproof membrane carried down into the fitting. The inner pipe is slotted to allow drainage of the mortar bed (screed).

FLOOR WASTE SKETCH





WET AREA TYPICAL





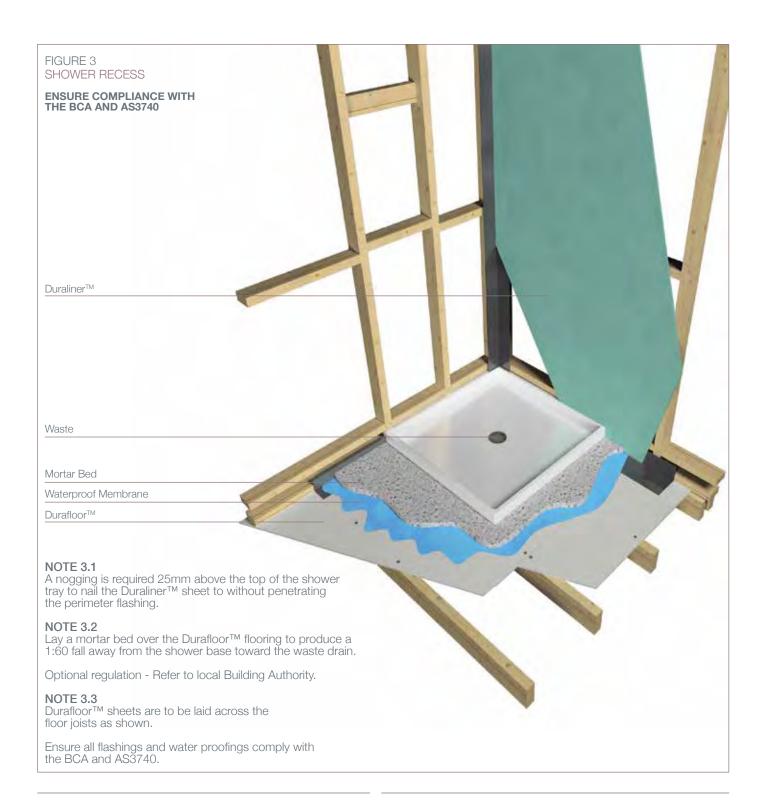


SHOWER RECESSES

Particular attention is required to the sealing of shower alcoves or recesses.

As with all wet area applications strict adherence to the Building Code of Australia, AS 3740-2010 and local building regulations is essential.

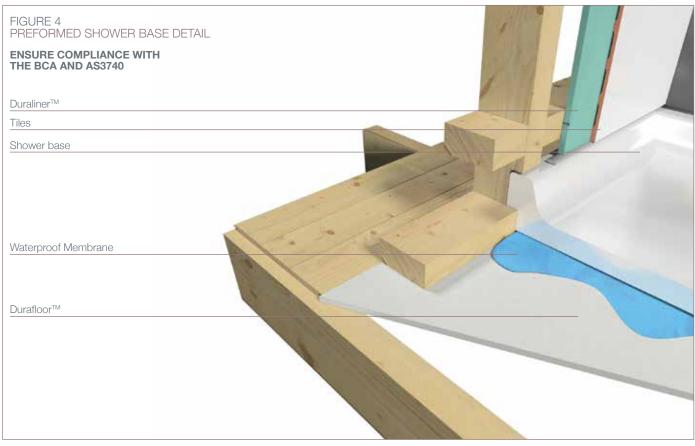
Figures 3 & 4 depict a preformed shower base. Figure 5 depicts a waterproof membrane, which may be either preformed or insitu.

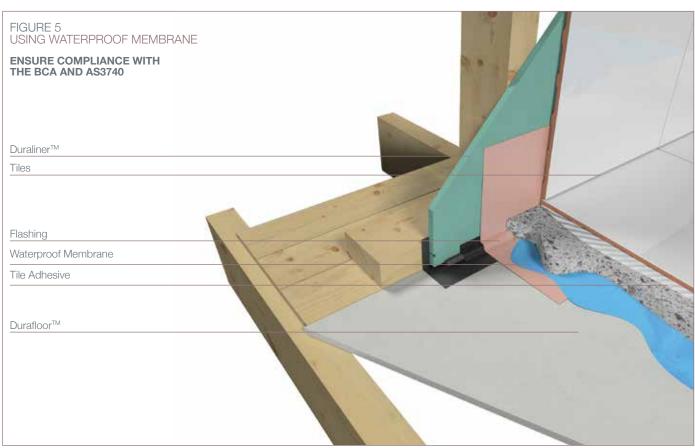






SHOWER RECESSES









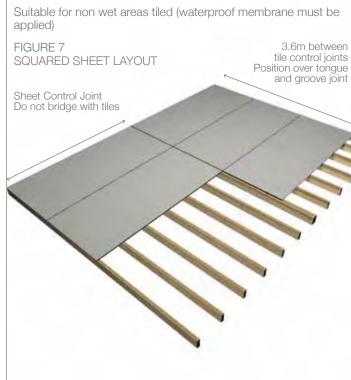
INTERIOR TILED FLOORS

In areas where floor waste drains are not required for example kitchens, ceramic floor tiles may be fixed directly to the Durafloor $^{\text{TM}}$.

Durafloor™ should be laid across the floor joists using a proprietary tile adhesive conforming to the Australia Standards AS2358 – Adhesives – for fixing ceramic tiles and AS3958.1 – ceramic tiles – Part 1 – Guide to the installation of ceramic tiles.

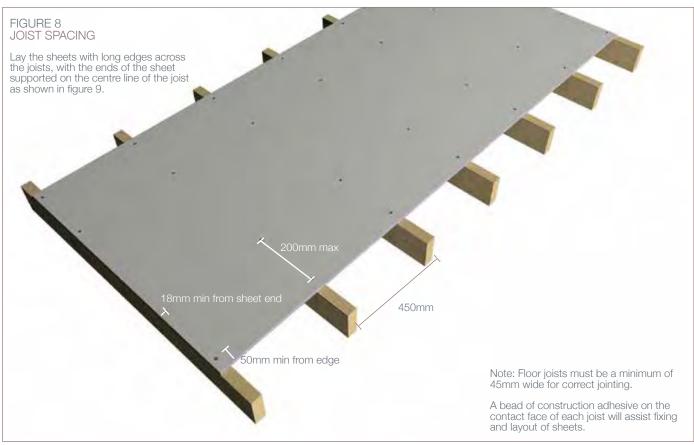
SHEET LAYOUT

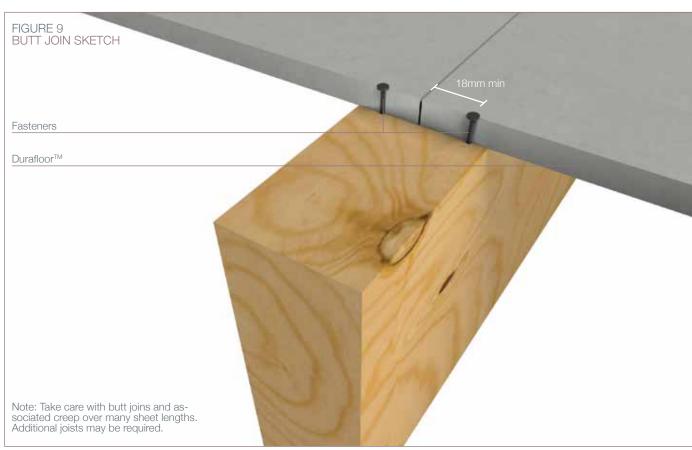






INSTALLATION DETAILS - INTERIOR TILED FLOORS





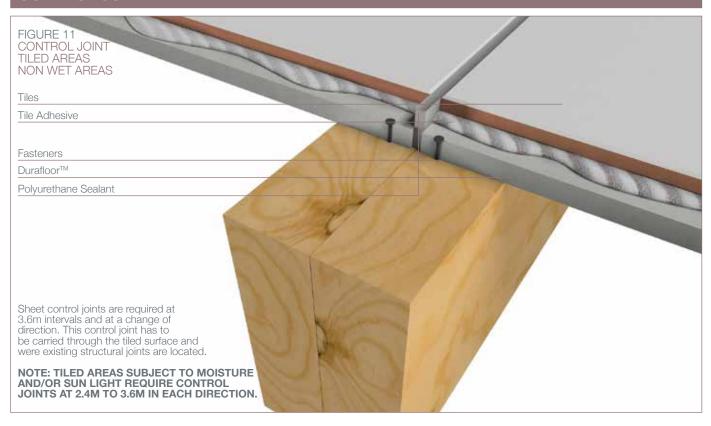




INSTALLATION DETAILS - INTERIOR TILED FLOORS



CONTROL JOINT







INSTALLATION DETAILS - INTERIOR TILED FLOORS



DIRECT STICK TILES TO DURAFLOOR™

/ Ensure tile joints conicide with tongue and groove. / Fill tile joints with flexible sealant.





EXTERIOR DECKING

Durafloor™ can be used as the substrate for a variety of exterior decking applications such as above ground pool surrounds, verandas and sun decks.

The basic requirements of three systems are covered in this brochure.

NON WATER PROOF

- Square sheet layout refer to fig 14
- / Suitable for general applications / Suitable for finish with paving paint, exterior carpet, synthetic lawn etc

WATER RESISTANT

- Square sheet layout refer fig 14 (max deck width 3600mm) Suitable for tiling (control joints required 2400 – 3600mm in either direction)
- Applied liquid membrane
- / Not suitable above a habitable room or living space

WATER PROOF

- Staggered sheet layout refer fig 13
- Suitable for large decks
- Suitable for tiling
- Minimum requirement over a habitable room or living space
- Achieved via sheet and/or applied membranes plus slipper sheet and floating reinforced mortar bed

GENERAL REQUIREMENTS

All decks shall have a fall minimum 1:100 to an outside edge. The use of sumps in decking is not recommended.

A step down, of at least 50mm should be provided at any doorways onto the deck.

Sheets are laid with the long edges across the joists. Max joist spacing 450mm centres. In all cases a floor joist must support the sheet ends. The exception being the outer edge of decks where a drip angle is installed.

The gap required for control joints needs to be taken into account when setting out the framing.

Ensure compliance with BCA and all relevant standards.

LOADING

Durafloor™ satisfies the loading requirements of AS/NZS1170.1 Table 3.1 Category A Domestic and Residential Activities Concentrated Loads 1.8kn @ UDL of 4KPA

For higher load applications, BGC Compressed Sheet is recommended. Please contact your local BGC Fibre Cement office for further details.

FRAMING

Timber or hot dipped galvanised steel joists are suitable framing members for Durafloor™.

For all applications the joist face width must be no less than 45 mm min.

Control joints will require a double joist to facilitate joint width.

It is STRONGLY recommended that joist creep control joint position and double joist positions be considered with sheet layout when setting out.

Timber framing must comply to AS1684 of the BCA and the frame makers recommendations. All timber must be seasoned and stable. UNSEASONED OR WET TIMBER MUST NOT BE USED.

Steel joists must comply with AS3623.

Both steel and timber joists must be suitable for the application and exceed the minimum durability and corrosion requirements.

Responsibility rests with the specifier and controlling party of the project. Suitability of structure and all associated details (as recommended here) for the project is controlled by them. Details contained within this document do not cover all possibilities. It is up to the specifier to develop additional details as required.

WATERPROOFING

Waterproofing a deck is dependant on the membrane and application of that membrane.

Ensure an approved membrane is applied by an approved applicator able to warrant and guarantee the membrane and its application.

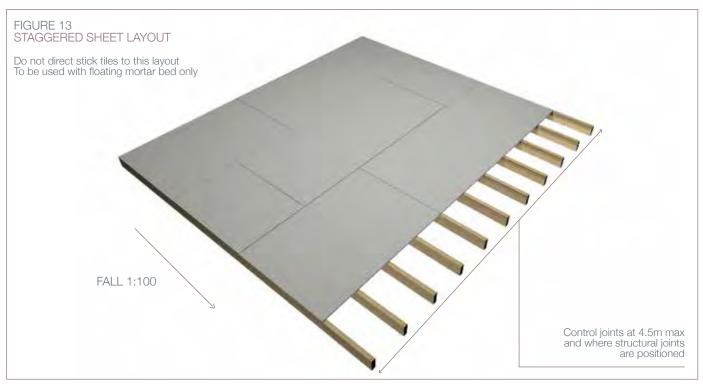
Manufacturers like RLA Polymers Pty Ltd or Ardex Australia are established manufacturers of these systems.

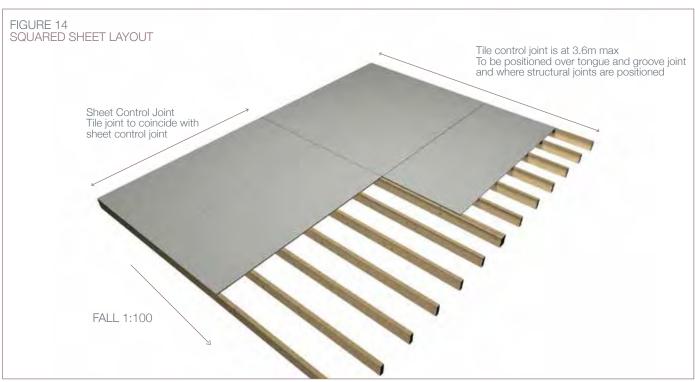
Ensure compliance with AS/NZ 4654.2.



SHEET LAYOUT - EXTERIOR DECKING

TYPE	SHEET LAYOUT	MEMBRANE	
Non Water Proof	Squared	Required when tile finish used AS/NZ 4654.2	
Water Resistant	Squared	Applied liquid membrane to AS/NZ Standard 4654.2	
Water Proof	Staggered	Sheet Membrane or Applied Membrane to AS/NZ 4654.2 Slipper Sheet floating mortar bed to AS/NZ 4654.2	

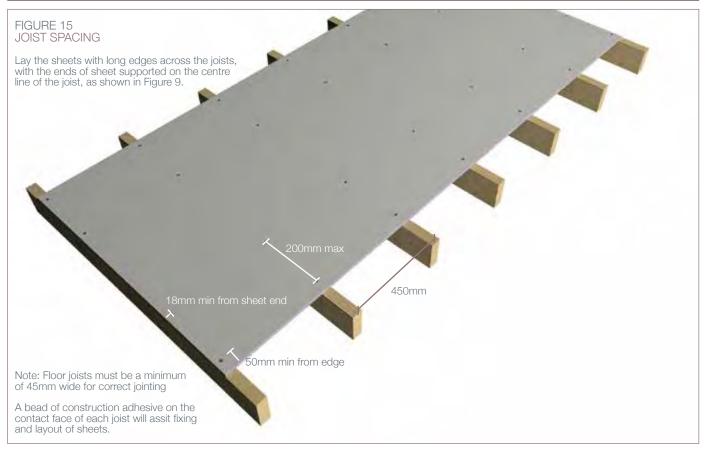


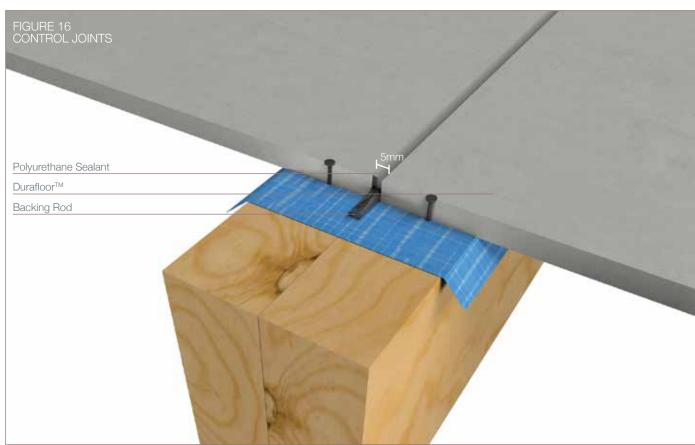






FIXING - EXTERIOR DECKING

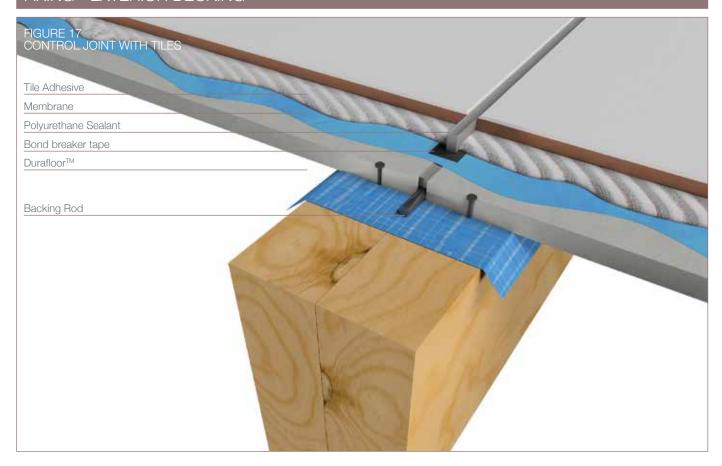








FIXING - EXTERIOR DECKING



SEALING

After fixing, the screw holes should be sealed using a polyurethane sealant to prevent ingress of water into the framing.

Hint: Before drilling the holes, place a piece of masking tape over each hole location. Leave the tape in place until the hole is drilled, the screw fixed and sealant applied. Remove the tape immediately after sealing will leave the area clear of sealant and scuff marks.

FASTENERS

Durafloor™ can be fixed to either timber or lightweight steel framing. All fasteners to be a minimum Class 3 Corrosion Resistant

Timber: Buildex SEH (A.W.Point) 10g x 16 x 45
Powers Muro Decking Screw M1062:10g x 50
Paslode HDG Coil Nail 45 x 2.5

Buildex: SEH Wingtek 10g x 16 x 40 or 10g x 16x 45 Powers Muro Self Drilling Wing M1024 Steel:

Or equivalent





DECK FINISHING DETAILS

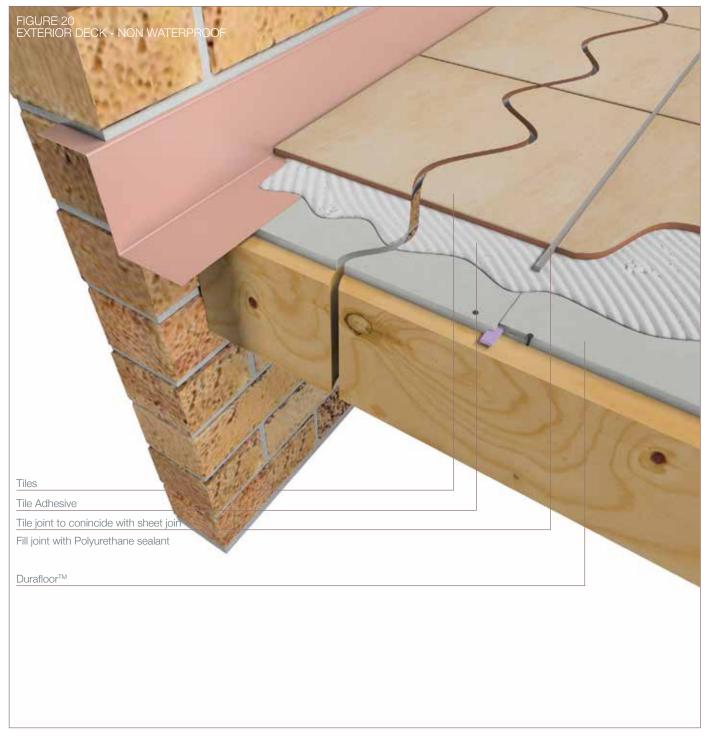








EXTERIOR DECK - NON WATER PROOF



OPTION 1/ DIRECT STICK TILES TO THE DURAFLOOR

- / Primer RLA Polymers Universal Primer diluted with 4:1 water or Ardex Multiprime
- Tile Adhesive RLA Polymers Flexi Part or Ardex x77
- / Tiles As per manufacturer's recommendations

Tiles must not bridge the sheet joins and control joints must be expressed through the tile.

Maximum deck width 3.6m.

OPTION 2 - STICK TILES OVER MEMBRANE

- / Primer RLA Polymers Uniflex Additive (Typical) or Adrex WPM 300 / Membrane RLA Polymers Dryflex Pump (Typical) or Adrex WPM
- / Tile Adhesive RLA Polymers Flexi Part or Ardex x77
- / Tiles As per manufacturer's recommendations

Tile control joints at 2.4m – 3.6m max position over sheet control joints and tongue and groove joint.

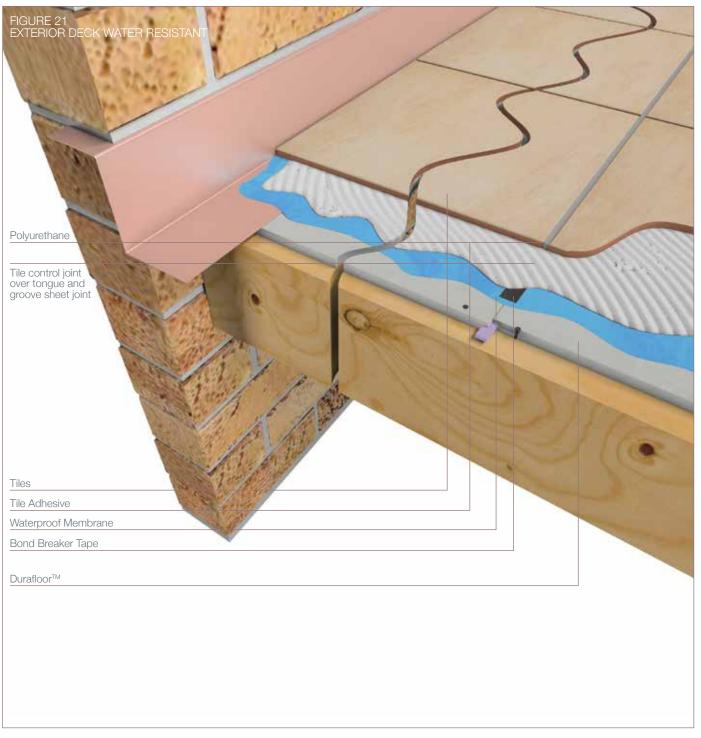
Refer to Ardex and RLA websites for Technical Data Sheets.

Tiles must not bridge the sheet joins and control joints must be expressed through the tile. Maximum deck width is 3.6m.





EXTERIOR DECK - WATER RESISTANT



SHEET PREPARATION

- / Primer RLA Polymers Uniflex Additive (Typical) or Ardex Multiprime / Membrane RLA Polymers Dryflex Pump (Typical) or Ardex WPM 001/002 / Tile Adhesive RLA Polymers Flexi Part or Ardex x77
- / Tiles As per manufacturer's recommendations

Tile control joints at 2.4m – 3.6m max and position to coincide with sheet joints and control joints

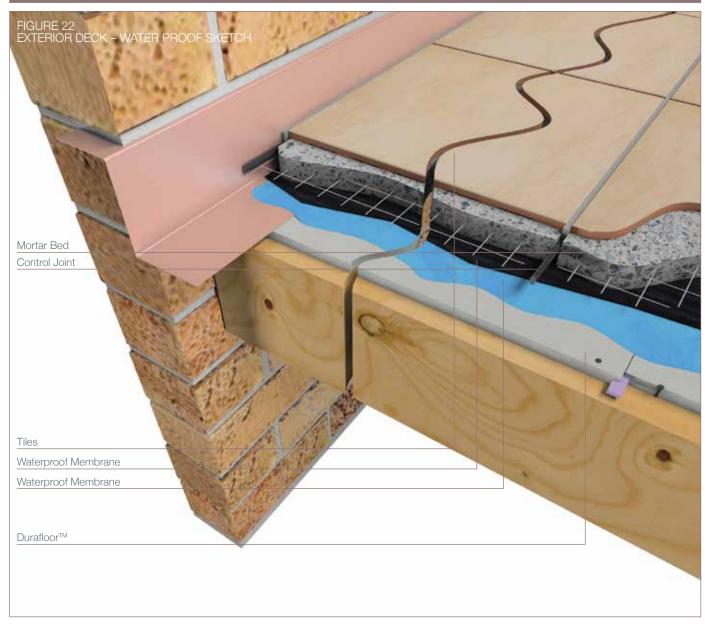
/ Control joints in sheets to be expressed through the tile joints and to coincide with structural joints

Refer to Ardex and RLA websites for Technical Data Sheets.





EXTERIOR DECK - WATER PROOF



SHEET PREPARATION - FOR TILING

- / Prime sheet Ardex Mulitprime or RLA Polymers- Uniflex Additive or similar
- / Waterproof Membrane Ardex WPM001/002 Deck web all joints RLA Polymers Dryler Pump or similar
- / 2 layers of slipper sheet i.e. 200 micron plastic builders sheet
- / Reinforced mortar bed. Sand cement screed with Ardex Abacrete (or similar) reinforced with 75 x 75 2.5mm galvanised weld mesh or equivalent
- / Primer RLA Polymers Uniflex Additive or Ardex Multiprime or similar
- / Tile Adhesive RLA Polymers Flex Part or Ardex X77 or similar

Control joints at 4.5m centres in mortar bed. Express control joints through tiles. Ensure grout has improver additive to increase flexural durability.

Sheet control joints do not need to coincide with control joint in mortar bed. Sheet control joints at $4.5 \mathrm{m}$ max.





EXTERIOR DECKS - FINISHES

Tiles - Consult

/ AS3958.1 Part 2 – Guide to Installation of Ceramic Tiles / AS2358 – Adhesives for Fixing Ceramic Tiles

OTHER FINISHES – Consult manufacturer for their recommendation and ensure installation complies with the recommendation provided.

MEMBRANES

APPLIED MEMBRANES (EXTERIOR DECKS)

- Primer RLA Polymers Uniflex Adhesive as primer or Ardex Multprime or WPM300
- / Membrame RLA Polymers Dryflex Pump to dry film thickness of 1.0mm or similar
- / Ardex WPM 001/002 or similar

In all instances consult with RLA Polymers or Ardex Australia for exact method and specification.

SHEET MEMBRANES

- / Primer Prime surface wuth Ardex WPM300 Hydropoxy to manufacturer's specifications
- / Membrane Ardex Botynol in accordance with Arcdex technical bulletin TB077. Clean the finish surface as advised

In all instances consult with RLA Polymers or Ardex Australia for exact method and specification.

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.

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 Fibre Cement Pty Ltd 121 Bannister Rd Canning Vale WA 6155 Phone 08 9334 4900 Fax 08 9334 4749

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 box com au/FibreCement):
- bgc.com.au/FibreCement);

 failure to comply with the Building Code of Australia 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.





TO CONTACT YOUR NEAREST BGC STOCKIST, PLEASE CALL:

ADELAIDE TELEPHONE 08 8250 4962

BRISBANE TELEPHONE 07 3271 1711

MELBOURNE TELEPHONE 03 9392 9444

PERTH TELEPHONE 08 9334 4900

SYDNEY TELEPHONE 02 9771 9660

NEW ZEALAND TELEPHONE 0011 64 9264 1457

TECHNICAL HELP LINE 1300 652 242



Fibre Cement



ISO 9001

BGC FIBRE CEMENT IS A PROUD AUSTRALIAN OWNED MANUFACTURER OF FIBRE CEMENT PRODUCTS.

BGC FIBRE CEMENT PROVIDES BUILDERS, DEVELOPERS AND ARCHITECTS WITH A RANGE OF DESIGN ALTERNATIVES AND INNOVATIVE PRODUCTS, SUCH AS:

EXTERIOR PRODUCTS AND APPLICATIONS INNOVA RANGE OF PRODUCTS

DURACOM™ / A compressed fibre cement facade system.

DURAGRIDTM RESIDENTIAL & DURAGRIDTM LIGHT COMMERCIAL. A light weight facade giving a modern and durable finish.

DURAGROOVE™ / A vertically grooved exterior facade panel.

DURASCAPE™ / A lightweight exterior facade base sheet with a subtle vertical shadow line.

NULINE™ PLUS / A weatherboard style cladding system.

STONESHEET™ / Purpose designed substrate for stone tile facade.

STRATUM™ / Is a trio of plank products, each of which can be used as stand alone products or used together to create a striking exterior cladding solution.

EXTERIOR PRODUCTS AND APPLICATIONS BGC FIBRE CEMENT RANGE OF PRODUCTS

DURASHEET™ / Ideal for the cladding of gables and lining of eaves. Can also be used on commercial soffits and cladding on non impact areas.

DURAPLANKTM / Available in Smooth, Woodgrain and Rusticated finishes, DuraplankTM is ideal for exterior cladding of upper storey conversions or ground level extensions.

DURATEX™ / A base sheet used for textured coatings on exterior wall applications.

DURALATTICE™ / Square or diamond patterned lattice, suitable for screens, pergolas and fences.

COMPRESSED / Used for domestic, commercial sheet for wet areas flooring, partitions, exterior decking, fascia and facade cladding.

DURALUX™ / Suitable for exterior applications where it will be sheltered from direct weather.

INTERIOR PRODUCTS AND APPLICATIONS BGC FIBRE CEMENT RANGE OF PRODUCTS

DURALUX™ / An interior lining board suitable for ceilings and soffits

DURALINER™ / An interior lining board, this is the perfect substrate for tiles and is ideal for wet areas.

CERAMIC TILE UNDERLAY / A substrate for ceramic and slate floor tiles.

VINYL CORK FLOOR COVERINGS