



# BARRIERFLEX

## 2 Part 2 in 1 Undertile Membrane and Tile Adhesive

- **White**
- **Internal/External Use**
- **Australian Made**

### DESCRIPTION

ABA Barrierflex is a waterproof, flexible adhesive for internal and external fixing of ceramic tiles.

A unique truly elastomeric ceramic tile adhesive. Barrierflex consists of a unique mix of polymers and special powders. Barrierflex features very low shrinkage and excellent adhesion.

Barrierflex is highly durable and will resist humidity, water, and extreme climates. It can be used for wall cladding and installation of ceramic tiles, marble, granite, slate and stone. It can be used inside and outside over a variety of surfaces on both walls and floors.

Barrierflex exceeds the requirements of Australian Standard AS 4992-2006

### TECHNICAL CHARACTERISTICS

Barrierflex is a two part elastomeric ceramic tile adhesive composed of a liquid polymer and a special blend of powders, which when mixed in the ratio of 4:1.5 powder:liquid (by weight) becomes an easy to apply paste. Minimum bed thickness should not be less than 1.5mm and never more than 10mm.

Barrierflex sets to enable floors to be ready for traffic after 48 hours depending on ambient temperature and surface porosity.

Barrierflex has a low shrinkage rate and excellent bonding, which make it suitable for use on most difficult surfaces. It has high resistance to impact, vibration, temperature changes and ageing.

### TYPICAL APPLICATIONS

Barrierflex can be used to fix:

- Ceramic tiles on prefabricated panels (concrete and fibre-cement)
- Ceramic tiles to internal sheet timber (refer to information below)
- Ceramic tiles on pre-cast concrete walls, rendered brickwork etc.
- Ceramic tiles, etc. in concrete swimming pools
- Ceramic tiles on floors including those with under floor heating.
- Ceramic tiles, slate and suitable stone tiles in outdoor applications (swimming pools, balconies, facades, terraces)
- Ceramic tiles in refrigeration units
- Ceramic tiles on surfaces subject to movement (e.g. suspended concrete slabs)
- Tiles in commercial kitchens, dairies and other areas where limited chemical resistance and hygiene is required.

NOTE: Render coats should be approx. 10mm and screed on floors a maximum of 25mm in bed thickness. Barrierflex should be applied only when the render or screed has dried sufficiently that trowelling does not scratch the surface.

### Barrierflex can also be used:

- As a crack suppressant elastomeric membrane. Barrierflex is applied with a trowel to develop an elastic membrane that will prevent existing hairline cracks in the floor/wall from coming through the tile surface
- As a waterproofing membrane for interior and exterior surfaces subject to water penetration (not rising damp).

### MIXING

#### Tile Adhesive

Floors: 40kg Powder (Part B) : 15 litres Liquid (Part A)

Walls: 40kg Powder (Part B) : 11 litres Liquid (Part A)

#### Membrane/Antifracture Membrane

20kg Powder (Part B) : 20 litres (Part A)

### APPLICATION

#### Elastomeric anti-fracture membrane

Ensure surface is dry, clean and free from dust, grease, oil, wax and other contaminating materials.

Barrierflex can be used to fill small hair-line surface shrinkage cracks. For cracks over 2mm wide, the following preparation is required:

- a) Prime with ARDEX Multiprime
- b) Remove loose particles and clean thoroughly. Fill cracks with a high quality silicone sealant or use PVC duct tape.
- c) Apply first coat of Barrierflex then immediately roll out the 190mm wide strip of reinforcing mat into the wet coat and knead/roll to ensure the mat is fully embedded. Immediately apply a second coat of Barrierflex to completely fill the mat.

#### Waterproofing Membrane

Ensure surface is dry, clean and free from dust, grease, oil, wax and other contaminating materials. Prime surface with ARDEX Multiprime, and allow to dry before applying 2 coats of Barrierflex.

Mix Barrierflex powder and Barrierflex liquid 1:1 (1 part powder to 1 part liquid). Add powder to liquid and blend with mechanical stirrer on low speed, until there are no lumps remaining.

Apply Barrierflex to the surface with paint brush, roller or flat trowel, ensuring a thickness of at least 1mm, with no air bubbles, pin holes or gaps through which water can penetrate. Apply second coat in a different direction.

#### Corners and Coving Areas:

Apply a bead of flexible sealant (10mm) i.e., neutral cure silicone or backer rod in coving areas and corners prior to applying Barrierflex. Apply a liberal coat of Barrierflex by paint roller or brush. Immediately roll out the reinforcing polyester fabric (Deckweb) (150mm wide) into the wet Barrierflex. Apply a second coat of Barrierflex to completely fill the mat.

Allow the membrane to set until it is hard enough so that trowelling does not damage it.



## Internal Sheet Timber

Particleboard and plywood, with the exception of unbonded timber such as laminated flooring or strip timber floors (e.g. cypress pine).

Timber floors must be structurally sound and free from abnormal deflection. The maximum load deflection must not exceed 1/360 of the span.

Timber floors must have good underfloor ventilation and underfloor moisture levels must be stable during the life of the flooring system. Free water sources must not be allowed under timber floors as dimensional stability will be compromised.

If timber sheets are clean and free of contaminants, there is no need for sanding.

If timber sheets are contaminated, these must be sanded with 40 grit sand paper (or 24 grit if timber is coated/stained) to the original timber so as to achieve a suitable surface profile and to remove surface contaminants. Vacuum clean the surface prior to priming with ARDEX Optima, mixed 2 parts powder to 1 part liquid. Add the powder to the liquid whilst stirring with a mechanical mixer. Stir until both parts are homogeneously mixed. Pre-wet a 15mm nap (sponge) roller with the ARDEX Optima slurry before applying a thick coat of slurry over the timber substrate. Allow the slurry coat to dry fully before tiling over. For sheeted material e.g. particleboard flooring, tape joints with PVC ducting tape. Virgin strip timber floors must be fibre-cement sheeted prior to tiling.

## FIXING TILES

Tiles must be carefully selected to suit the area in which they will be used.

1. Ensure surface is dry, clean and free from dust, grease, oil, wax and any other contaminating materials. Prime the surface with ARDEX Multiprime, prior to tiling. Barrierflex has a pot life of approximately 2-3 hours in normal temperature and humidity. Apply adhesive mixture to the wall & floor using the appropriate size notched trowel, usually 6 x 6 x 6mm for walls or 10 x 10 x 10mm on floors. Beat the dry tiles into the ribs of the adhesive before it skins. The whole of the back of the tile must be in good contact with the adhesive. No spaces should be left beneath the tiles. The final bed must not be less than 1.5mm thick or more than 10mm.
2. Large size tiles may require buttering of the adhesive on the back of the tiles as well as spreading the adhesive on the background to ensure 100% coverage
3. Wall tiles should be adjusted to give a space of at least 1.5mm between each tile (joint width).
4. Floor tiles should have a final joint width of no less than 3mm.
5. From time to time, a tile should be removed to ensure correct coverage is being achieved.
6. Do not grout until the tiling has set firmly (usually the next day) and allow the adhesive to cure for at least 48 hours before walking on the floor.

## GROUTING

Typically the tile bed is hard enough after approximately 24 hours at 23°C and 50% relative humidity. Allow longer for dense tiles/ substrates, humid climates and low temperatures.

## MOVEMENT JOINTS

For floors, incorporate movement joints at no more than 5 metre intervals and around the perimeter of the floor. They must be incorporated between different background materials and at fixtures interrupting the tile surface e.g. columns etc.

Any structural movement joints must be carried through to the surface of the tiles. These joints should be about 6mm wide and kept free of adhesive and grout droppings. They should be filled with a suitable high quality flexible material.

For walls, incorporate movement joints at 3.5 metre intervals, at internal vertical corners and at storey height for external fixing.

NOTE: For swimming pool applications refer to ABA Technical Services.

## COVERAGE

Tile Adhesive: One unit of 15 litres liquid and 40kgs powder will cover approximately 14m<sup>2</sup> when using a 10 x 10 x 10mm notched trowel and 22m<sup>2</sup> using a 6 x 6 x 6mm notched trowel.

Waterproof membrane: Coverage will vary depending on the porosity of the surface. One 40kg mix (20kg Powder and 20kg Liquid) will cover approximately 16–24m<sup>2</sup> (based on two coats) depending on area requirements between wall and floor surfaces to be treated.

## CLEANING

Tools and tiles should be cleaned as soon as possible with water while Barrierflex is still fresh.

## SHELF LIFE

A shelf life of 12 months is expected when Barrierflex liquid and Barrierflex powder is stored in a dry place in the original unopened packaging.

## PACKAGING

ABA Barrierflex is available in; Part A Liquid – 15L Pail, Part B Powder – 20kg Polylined paper sack.

Also in a ABA Barrierflex Shower Kit containing Part A Liquid – 4L Pail, Part B Powder – 4kg sack (kit is complete for 5m<sup>2</sup> of waterproofing and also contains Primer 1L, Silicone, Reinforcing Mat, Gloves and instruction leaflet).

## STORAGE

Store in a dry place between 10° and 30°C. Protect Barrierflex from frost.

## PRECAUTIONS

In exterior conditions it is essential to provide protection from all extremes of climate during the whole fixing and grouting operation. Do not apply product when temperature is below 5°C.

## SAFETY PRECAUTIONS

Irritating to respiratory system and skin. Risk of serious damage to eyes. Do not breathe dust. Avoid contact with skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and eye protection and keep the product out of the reach of children. Use only in well ventilated areas. Avoid generation of airborne dust during mixing. If swallowed do not induce vomiting, give a glass of water and contact a doctor. For further safety data, consult the latest Material Safety Data Sheet.



## TECHNICAL DATA

Colour: Grey powder/white liquid  
Mixing Ratio: Various for application (see instructions)

### Application Properties at 23°C and 50% RH

Open Time: 20 minutes  
Adjustment Time: 25 minutes  
Grouting Time: 24 hours  
Pot Life: 2-3 hours  
Specific Gravity of Mix: Approx. 1.8kg/litre

### Mechanical Properties (AS 4992)

Tensile Adhesion Strength after  
7 days dry: >1.0MPa  
14 days dry: >1.5MPa  
7 days water immersion: >1.0MPa

### Membrane Properties:

Tensile Strength: 1.0MPa  
Water Vapour Transmission: 9.3g/m<sup>2</sup> day

## PRODUCT GUARANTEE



Ardex Australia Pty Ltd (“we” or “us”) guarantees this product (also referred to as “our goods”) is free from manufacturing defects and will perform to any applicable specification published by us for 15 years from the date of application of the product if such application occurs within this product’s specified shelf life. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or the cost of such replacement or repair, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow our published instructions or any act or circumstance beyond our control, including shade variations and efflorescence and faulty workmanship on the part of any installer or applicator of the product. If you wish to make a claim under this guarantee you must notify us (address: 7/20 Powers Road Seven Hills NSW 2147; phone: 1800224070; email: [techinfo@ardexaustralia.com](mailto:techinfo@ardexaustralia.com)), identify the product and provide evidence of your purchase and the subsequent application of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage and to undertake any inspections and tests necessary to establish your rights under this guarantee. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a “consumer” under the Australian Consumer Law and to that extent you need to be aware that: “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 of 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”.

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