

# SILASEC

WP0001 **REVISED: JANUARY 2002** 

#### DESCRIPTION

Bondall Silasec is a concentrated liquid waterproofing compound designed to be used with Portland type A or type GP cements to form a permanent waterproof barrier on masonry and concrete structures and floors.

When used as specified, Bondall Silasec can be used as

- A WATERPROOF CEMENT PAINT
- AN ADDITIVE FOR RENDERS AND TOPPINGS
- A QUICK SETTING PUTTY FOR SEALING AGAINST WATER BURSTS IN PIPES AND TANKS ETC.

Providing the surface is structurally sound, Bondall Silasec can be used above or below ground in interior or exterior applications.

## **FEATURES AND BENEFITS**

- A permanent waterproofing barrier
- Waterproofs renders or toppings
- Waterproofs fish ponds and pools
- Waterproofs tile grout for showers
- Waterproofs cement repair putty
- · Can be used on above or below ground applications
- Can also be used on interior or exterior applications

## SURFACE PREPARATION

- 1 Do not attempt to waterproof an unsound surface.
- 2 All surfaces must be clean.
- 3 Surfaces should be free of contaminants such as oil, grease, paints, silicones, curing compounds or any material that will effect adhesion.
- 4 Smooth cement or concrete should be sparrow picked or acid etched to provide a good mechanical "key".
- 5 When acids or detergents are used during the preparation procedure, care must be taken to pre-wet the surface and ensure all residues from these materials are removed and/or neutralised.
- 6 To successfully apply Bondall Silasec, the surface must be first saturated with water to take up the surface porosity.









#### DO NOT USE BELOW 8 DEGREES CELSIUS. DO NOT ALLOW PRODUCT TO FREEZE

- Apply Bondall Silasec cement paint in thin coats Do not apply too heavily as surface may become powdery or may craze or develop mud cracking.
- In hot weather, apply during the cool hours of the day.
- When handling Bondall Silasec and/or cement, we recommend that rubber gloves and eye protection be worn.
- If unsure of the specification or of the use DO NOT PROCEED.

Contact Bondall Building & Renovating Products toll free 1800 810 123 or (08) 9277 6844.

- Always use Portland type A or type GP cement. Off white cement may also be used depending on preference.
- Only mix what you can use within 30 minutes. Hot dry weather will shorten this time, while cool, humid weather will extend it slightly.
- Ensure Bondall Silasec is stirred and mixed thoroughly before proceeding.
- DO NOT USE LIME IN Bondall Silasec MIXES
- Keep Bondall Silasec well stirred when adding to cement mixes.
- Do not over mix.
- Allow at least 4 weeks before applying any decorative paint finishes or floor coverings over treated surfaces.
- Ensure substrate is fully saturated but not wet before coating.
- Mist spray water regularly eg. 2 4 times per day to hasten reaction.

### The Following applications are just a few of the many uses Bondall Silasec.

The various dilutions shown are to be mixed together by volume measurement and stirred thoroughly, then painted on or mixed into materials as indicated.

#### WATERPROOFING BRICK OR BLOCKWORK

Step 1: Prepare surface as per surface instruction (page 1)

Step 2: Saturate the surface with water. Surface must be soaked but not running wet before applying mix. Repeated wetting may be necessary to maintain a saturated surface.

Step 3: Mix 1 part by volume Bondall Silasec with 5 parts of water and stir well. Add 7 parts of Portland type A or type GP cement and mix thoroughly to form a Bondall Silasec cement paint then add 1 part of Bondall Bondcrete to the paint mix and mix well for the first coat only. Pot life of Bondall Silasec cement paint is approximately 30 minutes.

Step 4: Apply mixed Bondall Silasec cement paint to the saturated surface with a large paintbrush or broom, working it well into the surface.

Step 5: Apply a "bagging" mix immediately while the Bondall Silasec cement paint coat is still wet. The bagging mix is made by pre-diluting 1 part of Bondall Silasec with 5 parts of water. Mix this dilution with 3 parts of clean, sharp sand and 1 part of Portland type A or type GP cement to form a well-mixed material of earth damp consistency. Hand rub this mixture into and then off the surface immediately the first coat of paint is applied. (Rubber gloves should be worn)

It is recommended that an area of approximately 2m<sup>2</sup> be painted and bagged at a time, progressively covering the whole area to be treated.









Step 6: Allow to cure for 24 hours.

Step 7: Apply two more Bondall Silasec cement paint coats as detailed in steps 2, 3 and 4. Allow 24 hours between coats.

Note: As cement tends to settle in water, repeated stirring of the paint mixture is recommended.

During warm weather, it is advisable to lightly wet the treated surface 6 to 8 hours after application of each coat to obtain correct setting.

WATERPROOF RENDERING OF WALLS

A) ABOVE GROUND LEVEL

Step 1: Prepare the surface as per surface preparation (Page 1).

Step 2: If surface is leaking or weeping water, refer to specification "Sealing Weeping Surfaces Prior to Cement Rendering".

Step 3: Saturate the surface with water. Surface must be soaked but not running wet before applying mix. Repeated wetting may be necessary to maintain a saturated surface.

Step 4: Mix 1 part by volume of Bondall Silasec with 5 parts of water and stir well. Add 7 parts of Portland type A or type GP cement and mix thoroughly to form a paint then add 1 part of Bondall Bondcrete to paint mix and mix well for the first coat only. Pot life of this mix is approximately 30 minutes.

Step 5: Apply mixed Bondall Silasec cement paint to the surface with a large paintbrush or broom, working it well into the surface.

Step 6: Apply a conventional render while the paint coat is still wet and finish off with a wooden float. Allow 24 hours for render to set slightly. Steps 3, 4 and 5 are then repeated over 24 hour intervals until 3 coats have been applied.

B) BELOW GROUND LEVEL

Step 1: Prepare the surface as per surface preparation (Page 1)

Step 2: If surface is leaking or weeping, refer to specifications "Sealing Weeping Surfaces Prior to Cement Rendering.

Step 3: Saturate the surface with water. Surface must be soaked but not running wet before applying mix. Repeated wetting may be necessary to maintain a saturated surface.

Step 4: Mix 1 part by volume of Bondall Silasec with 5 parts water and stir well. Add 7 parts of Portland type A or type GP cement and mix thoroughly to form a paint then add 1 part of Bondall Bondcrete to paint mix and mix well for the first coat only. Pot life of this mix is approximately 30 minutes.

Step 5: Apply mixed Bondall Silasec cement paint to the surface with a large paintbrush or broom, working it well into the surface.

Step 6: Apply a "splash" or "dash" coat to the wet paint. A suggested mix for this is 2 parts 5mm metal screening to 1 part Portland type A or type GP cement. Allow 24 hours to dry. Saturate surface and repeat steps 3, 4 and 5. While paint is still wet, apply render. Suggested render mix is 2 or 3 parts clean, sharp sand to 1 part Portland type A or type GP cement mixed to a workable consistency using a dilution of 1 part Bondall Silasec to 5 parts water.

#### Notes:

As cement tends to settle in water, repeated stirring of the paint mixture is recommended.

- \* Do not use lime in this render as lime absorbs water and negates some of the waterproofing characteristics.
- \* Use Bondall Bondcrete for improved workability and increased adhesion. Typically add 1 part of Bondall Bondcrete to water and Bondall Silasec admixture.

Renders containing Bondall Silasec will set faster than conventional renders and care must be taken to allow for this.









#### WATERPROOFING FISH PONDS AND POOLS

To a sound surface, where cracks may exist, following the repair procedure as detailed below.

Step 1: Dig out the crack with a hammer and chisel forming a "V" along the length of the crack. Minimum "V" size should be 18mm to 20mm deep by 18mm to 20mm wide.

Step 2: Vacuum out any dust and debris.

Step 3: Run a 4mm bead of silicone rubber along the bottom of the "V" section to give a good flexible seal. Allow to cure as per the manufacturers directions.

Step 4: Patch area with a mixture of 3 parts sand to 1 part of Portland type A of type GP cement incorporating diluted BONDCRETE (1 part BONDCRETE to 5 parts water) instead of the normal mixing water. Allow 24 hours to cure before proceeding.

NOTE: To waterproof the walls and floor: follow specifications for "Waterproofing Existing Concrete or Cement Render" (page ).

#### PREPARATION BEFORE ADDING FISH

Important: For fish ponds, it will be necessary to neutralise the lime alkaline action of the cement in water; as that can be harmful to fish. A method of neutralising is as follow:

Step 1: Fill pond with fresh water.

Step 2: Allow to stand for 4 to 5 days.

Step 3: Empty pond.

Step 4: Refill with fresh water, Allow to stand for 2 or 3 days.

Step 5: Check pH of water with litmus paper or a pool test kit. Fish are generally happy with a pH of between 7 and 7.5. To obtain the correct pH. level, treat as necessary.

## WATERPROOFING EXISTING CONCRETE OR CEMENT RENDER

Step 1: Prepare surface as per surface preparation.

Step 2: Saturate the surface with water. Surface must be soaked but not running wet before applying mix. Repeated wetting may be necessary to maintain a saturated surface.

Step 3: Mix 1 part by volume of Bondall Silasec with 5 parts of water and stir well. Add 7 parts of Portland type A or type GP cement and mix thoroughly to form a Bondall Silasec cement paint then add 1 part of Bondall Bondcrete to the paint mix and mix well for the first coat only. Pot life of Bondall Silasec cement paint is approximately 30 minutes.

Step 4: Apply mixed Bondall Silasec cement paint to the saturated surface with a large paintbrush or broom, working it well into the surface.

Step 5: During warm weather, it is advisable to lightly wet the treated surface 4 to 8 hours after paint application to assist in achieving the correct set.

Step 6: Steps 2 to 5 are repeated at 24 hour intervals until 3 coats have been applied.

NOTE: As cement tends to settle in water, repeated stirring of the paint mixture is recommended.

#### WATERPROOF TILE GROUT FOR SHOWERS ETC.

Step 1: Prepare surface (Page 1). Old or damaged grout should be raked out to a depth of 4mm. Try using an old hacksaw blade to rake out old grout.

Step 2: Vacuum out any dust or particles.

Step 3: Prepare your new grout as follows 1 part Bondall Bondcrete, 5 parts water, 1 part Bondall Silasec. Stir this mixture and add white cement to form to form a thick, creamy paste.

Step 4: Wearing a rubber glove, rub this mixture all over the tiles and into the joints. Work only in small areas at a time, making sure the joints are filled and all traces of grout material are removed from the tile surface with a soft DRY cloth before progressing to the next section.

Step 5: When complete, allow 24 hours drying time before use.









#### WATERPROOF QUICK SET CEMENT REPAIR PUTTY

This system is suitable for stopping flowing water from fractures, holes and bursts caused by water pressure in cement and clay pipes, tunnels, brickwork, block work and concrete structures.

Reaction times will vary depending upon air temperature, brand and freshness of cement. Repairs are instant and water-proof.

Step 1: Prepare surface by opening up damaged sections to allow sufficient area and depth for putty to gain adhesion. Remove any crumbling material with a wire brush.

Step 2: Mix one cup of well-stirred Bondall Silasec and two cups of Portland type A or GP cement. Mix thoroughly with gloved hand until material is wet and putty like. Remove mix from container and knead in hands.

Step 3: When mix becomes hot and while it is still soft plug hole by pushing into hole and holding until hard. For large repairs, steps 2 and 3 may need to be repeated.

Step 4 If weeping is occurring treat as per below.

NOTE: Never mix more that you can hold in your hand. A trial is recommended before actual application to familiarise yourself with the reaction times and procedure.

#### SEALING WEEPING SURFACE PRIOR TO CEMENT RENDERING

Step 1: Prepare surface. Wire brushing may be necessary to obtain best results.

Step 2: Ensure surface is saturated with water.

Step 3: Mix 1 part by volume of Bondall Silasec with 5 parts of water and stir well. Add 7 parts of Portland type A or GP cement and mix thoroughly to form a paint. Pot life of this mix is approximately 30 minutes.

NOTE: Only mix sufficient for one coat.

Step 4: Apply mixed Bondall Silasec cement paint to the saturated surface with a large paintbrush or broom, working it well into the surface. Weeping may continue during and after application but this is normal.

Step 5: Steps 2, 3, and 4 are repeated at 24 hour intervals until 3 coats have been applied.

Step 6: Apply a "dry mix" to the third coat while it is still wet. This 'dry mix" should consist of 1 part wash sharp sand to 2 parts Portland type A or GP cement. Wearing rubber gloves, rub this mix into and over the wet paint without leaving a surplus and without removing the paint coating.

NOTE: In severe cases a repeated applications may be required. If in doubt, do not proceed but contact Bondall Building & Renovating Products toll free 1800 810 123 or (08) 9277 6844.

Step 7: With the weeping now stopped, the wall can now be cement rendered using specification "Waterproof Rendering of Walls (Page 4)

## WATERPROOF ADDITIVE

Step 1: Mix 1 part by volume of Bondall Silasec with 5 parts of water and mix thoroughly. Step 2: Use this dilution as your gauging water for your render, topping or concrete.

NOTE: Bondall Silsec will accelerate the setting of cement and care must be taken to allow for this.

### **COVERAGE**

Varies depending upon surface porosity and texture. The following estimates will provide a useful guide.

Waterproof Cement Paint 30m<sup>2</sup> per litre of Bondall Silasec when mixed as: in parts by volume 1 litre Bondall Silasec: 5 litre water: 7 litre fresh Portland Type A or Type GP cement powder or better quality.

Additive to render. 1.5m<sup>2</sup> – 12mm thick per litre of Bondall Silasec when mixed as: 1 litre Bondall Silasec: 5 litre of water: to 75kg sand: and 25 kg fresh Portland Type A or Type GP cement.

Additive to concrete 16 litres Bondall Silasec per 1m<sup>3</sup> of concrete.









#### **DRYING TIME**

As an admix initial setting time 4:2:1 concrete is reduced from 2 ½ hours to approximately 45 minutes.

Touch dry 30-40 minutes Cement paint only

> Hard dry 24 hours

Wind, temperature and humidity will effect these drying times and care should be taken to allow for this.

## **CLEAN UP**

- 1 Do not allow used materials to set on tools or mixing containers.
- 2 Wash all equipment in soapy water immediately after use.

### **SIZES**

1 Litre and 2 Litre 4 Litre 15 Litre and 200 Litre

## PRECAUTION/FIRST AID

It is recommended that normal personal protective clothing should be worn, including coveralls, impervious gloves and goggles. Avoid unnecessary skin contact and inhalation – use a suitable respirator if spray application is employed.

Should contact with eyes occur, flush with water for 15 minutes, seek medical attention if irritation develops.

If swallowed, contact a doctor or the Poison Information Centre on 13 11 26. Give water to drink and do not induce vomiting.

#### DISCLAIMER

The information contained here is given in good faith and is intended to be of assistance to users. The performance of this product is dependant upon its correct preparation, application on to a sound surface and attention to the instructions on the label. The wide variety of the contraction of thsurface conditions makes it impossible for the company to assume liability for any loss, consequential or otherwise, arising from the use a consequential or otherwise, arising from the use and the company to assume liability for any loss, consequential or otherwise, arising from the use and the company to assume liability for any loss, consequential or otherwise, arising from the use and the company to assume liability for any loss, consequential or otherwise, arising from the use and the company to assume liability for any loss, consequential or otherwise, arising from the use and the company to assume liability for any loss, consequential or otherwise, arising from the use and the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for any loss of the company to assume liability for all the company to assume liability for any loss of the company to assume liability for all the company to a comof this product. Should the product befound defective our liability shall be limited to the replacement of the product only. We reserve theright to amend specifications and application techniques without prior notice.

For further advice please contact the Bondall Building and Renovating Service on 1800 810 123 or (08) 9277 6844





