



Application Guide

For

**Designer Beadcrete  
&  
Designer Pool Render**

Concrete Pool Finishes

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Designer Concrete Coatings Pty Ltd

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## PRODUCT DESCRIPTION

**Designer Beadcrete** is a patented exposed reflective aggregate that produces a concrete pool interior finish of glowing aesthetic colour when exposed to light.

**Designer Pool Render** is a high performance decorative colour exposed aggregate render purpose designed for reinforced concrete pool interiors.

Each product incorporates the latest development in polymer modified cement based pool renders and is factory batched for quality assurance and consistency. The finish is superior and significantly less coarse than traditional exposed aggregate. Lower risk hazard of skin abrasions to pool owners. Packaged in 20kg plastic lined paper sacks and made in Australia, the products are user friendly, easily worked and applied by competent experienced tradespersons.

Excellent compressive strength enhances durability and abrasion resistance. Mix design additives reduce porosity and permeability in the finished work for improved normal pool maintenance requirements.

Slip resistance capability in accordance with AS/NZS 4586:2000 to satisfy the requirements of HE 197:1999 – *Wet Pedulum Test : Class w (Low)*

The products are applied using similar work methods to 1mm 'pebblecrete' and may be installed where 1mm 'pebblecrete' is typically placed as a pool finish and/or may be applied where any sized pebblecrete can be placed.

## PRECAUTIONS and LIMITATIONS

The products are recommended for use by professional pool interior tradespersons. Application should only commence after pumps are fitted, tile bands and coping laid. The pool needs to be fully operational immediately following product application and final detailing. Proper surface preparation must be achieved prior to product placement to promote durability and serviceability.

Until hard set has occurred, freshly finished surfaces must be protected from rain or damage from other sources. As is the case for all cementitious products, in windy conditions and on days of low humidity combined with high ambient temperatures, special precautions must be taken during product placement and finishing to control drying shrinkage.

All MSDS & PPE (Materials Safety Data Advice-Personal Protective Equipment) information and recommendations are the responsibility of contracted tradespersons to accept the same in the performance of the work and is a statutory requirement of WorkCover.

**IMPORTANT NOTE:** Designer Beadcrete™ and Designer Pool Render are specifically designed to be submerged in water to provide an acceptable probability of colour stability and serviceability during their design life. Whilst the structural integrity of the finished coating may or will not be compromised if exposed to normal weather conditions, use of water-line border tiling where weather exposure will occur is recommended to preclude colour variance from the normal influence of UV light and wetting / drying cycles. No guarantee is or can be given for colour variance of the finished material if left unsubmerged and exposed to normal weathering.

## PREPARATION – NEW CONCRETE POOL SHELLS

Product mix design melds to any pool shape and to the tightest curves. Correct preparation and attention to detailing the pool shell before product application is therefore an important first step to avoid disruption to decorative affect, minimise product waste and achieving good final finish consistency to the overall work.

Proper and workmanlike preparation includes-

- (i) The concrete pool shell must be cured for at least 14 days.
- (ii) The concrete pool shell must be thoroughly clean – remove all loose materials, concrete dust, dirt, oil, grease, leaves and laitance from the surface. Wash down and pump out. If acid washed, hose out thoroughly to dilute/remove any acid residue.
- (iii) The concrete pool shell must have good surface key to promote product bond and to ensure an acceptable probability of serviceability and durability of the work. Specification of a broomed or wood floated concrete pool shell finish is recommended. Smooth surfaces must be mechanically roughened to the point where a coarse key texture is achieved.
- (iv) Application of CPA 3000 Concrete Priming Agent from Designer Pool Coatings.

## PREPARATION – CONCRETE POOL SHELL RENOVATIONS

Designer Beadcrete and Designer Pool Render pool finishes are designed specifically for application on masonry surfaces. **Fibreglass or paint coatings that have been applied to existing concrete pool shell surfaces must be completely removed before product installation.**

Proper and workmanlike preparation includes –

- (i) The existing masonry pool shell surface must be thoroughly clean - completely remove any fibreglass or paint coating, all loose material and surface contaminants. Where 'pebblecrete', 'marblesheen', 'quartzon™' or render has previously been used, remove all "drummy" and any deteriorated areas completely back to the concrete shell. If the interior is old and generally evident that the number and condition of existing surface defects may or will disrupt the integrity of the new work then complete removal and reinstatement of the old interior is best practice and in accordance with proper and workmanlike preparation method.
- (ii) The existing masonry pool shell surface must be key textured to promote product bond – smooth surfaces will require mechanical roughening using a hand scutch or 'kanga' hammer or similar texturing tool.
- (iii) The existing pool tile band must be properly detailed – use an appropriate diamond bladed power tool to cut (8mm-10mm depth) horizontally along the base of the tile band. Make another cut to the same depth parallel 100mm below the first cut. Remove the 100mm section of old interior finish. This detailing will allow the new interior surface to finish flush with the existing tile band. Re grout tiles and clean and restore to good condition before application of new finish to pool interior.

**Safety First:** Use appropriate protective work wear and eye wear when operating cutting equipment insitu with any concrete masonry material.

- (iii) Patch and repair areas within the existing pool interior that have been removed back to the concrete shell – fill these areas to surface level using Designer Pool Coatings ready made Patch and Repair mortar.
- (iv) Apply CPA 3000 Concrete Priming Agent from Designer Pool Coatings to the entire existing pool interior after completion of all preparation works to promote new finish adhesion.

## **APPLICATION GUIDE & MIX PREPARATION FOR DESIGNER POOL COATINGS Designer Beadcrete and Designer Pool Render Products.**

### **Important Precautionary Information:**

- ***To promote uniform aesthetic finish and reduce risk of minor variations in shading induced by prevailing weather conditions and/or drying rates and coverage between mixed batches – apply product evenly and consistently to the vertical perimeter surfaces and steps before installing pool floor.***
- ***Maintain clean, safe work area and prevent contaminants and/or rain from entering the pool during product application and until hardset has occurred. This may require use of waterproof fabric covers and appropriate barrier material installed to pool surroundings.***
- ***Use of shade covers on days of high ambient temperature and low humidity and particularly if accompanied with high windy conditions may or will assist in the control of product application and reduce risk of rapid moisture loss and drying shrinkage.***
- ***DO NOT apply Designer Pool Coatings products to dry and/or improperly prepared concrete pool shells. Reduced bond strength and serviceability may or will result.***

### **STEP 1: APPLY SCRATCH COAT USING CPA 3000 CONCRETE PRIMING AGENT:**

- Dampen the prepared pool shell surface first with a mist spray of clean water.
- Scratch coat the entire pool interior using recognised broom or trowel method. The scratch coat CPA 3000 Concrete Priming Agent must be applied in accordance with the manufacturers recommended procedures.

### **STEP 2: APPLY FINAL FINISH COAT:**

- Apply finish coat to CPA 3000 Concrete Priming Agent scratch coat; trowel to achieve uniform thickness (usually 8mm) and a consistent , even surface.
- Maintain a 'wet edge' when joining walls to floor.

- Cure the completed work to assist in the control of uniform moisture content across the surface and to reduce risk of uneven colour that may or will occur when different areas cure at different rates. A common curing method is use of clean fabric similar to a 'paint drop sheet' and if used, ensure the edges are held down to stop wind lifting the covering.

### **STEP 3: DETAILING AFTER INITIAL SET:**

- Detailing should only commence when the pool interior has achieved initial set – after the final finish has hardened sufficiently so as not to produce any unacceptable ravelling (loss of aggregate) or surface imperfections. Initial set will be influenced by ambient weather conditions and may occur as early as 2-3 hours after completion of the work in temperate summertime climates of approximately 25°C – longer in wintertime.
- For Designer Pool Coatings – carefully mist spray with water to remove the scum layer of cement slurry from the surface and when Designer Beadcrete is used to very lightly and evenly expose the reflective beads and decorative aggregates. If the surface has not hardened sufficiently, risk of aggregates being inappropriately washed from the surface will occur. The process requires attention to detailing, time to achieve initial set and appropriate experience to affect proper and workmanlike method.
- A slurry pump might normally be pre-set in correct position to remove slurry waste from the pool during the initial detailing process. Prevent slurry waste from entering discharge points to drains and waterways. Dispose of in accordance with EPA recommendations and/or local government stipulations.

### **STEP 4: FINAL DETAILING – ACID WASHING:**

- Final detailing should only commence when the pool interior has achieved hard set – or at least hardened to the point where the normal acid washing process will not damage or weaken the surface. Hard set will be influenced by ambient weather conditions and may typically occur 24 hours after completion of the initial finishing process in temperate summertime climates of approximately 25°C – longer in wintertime. Acid washing should only be attempted by contractors experienced with the proper and recognised technique, who should strictly observe environmental protection measures and safe hydrochloric acid product use and work practices required by relevant regulatory authorities.
- All surfaces to be acid washed must be wholly wetted with water before application. Do not apply acid solution onto dry 'green' pool interior surfaces. Damage will result. Do not allow acid solution to react for more than 5 – 10 seconds. Damage will result. Immediately following acid wash treatment of an area it must be flooded with copious amounts of water to dilute and neutralise the chemical reaction. Acid wash mix ratio might normally be diluted at the rate of 1 Part Hydrochloric Acid: 8-10 parts water.
- Acid washing should commence from the hydrostatic valve ( floor drain) proceeding to completion of the vertical surfaces. This process sequence minimises risk of channeling or streaking. Acid wash surfaces twice for proper and workmanlike results and optimum product performance.

- Thoroughly rinse surfaces after acid wash treatment. Ensure pool interior is completely clean. Immediately fill pool with clean water and balance the water chemistry to the following recommended outcome:

<b>Chemistry</b>	<b>Recommended Level</b>
pH	7.2 – 7.6
Total Alkalinity mg/L	80 – 120
Calcium Hardness mg/L	150 for first 12 months of pool operation.
Calcium Hardness mg/L	100 – 250 after 12 months of pool operation.
Free Chlorine	1.5 – 3.0
Stabilised Pools (Cyanuric Acid)	2.5 – 4.0

Chemistry levels should be achieved as soon as possible and thereafter checked and adjusted weekly to maintain good hygiene and swimmer comfort.

### **PRODUCT MIXING – ESTIMATING PRODUCT COVERAGE**

- Designer Pool Coatings products require a clean mixer and clean water additive only in sufficient quantity to achieve the desired consistency.
- One 20kg bag of product mixed with maximum 2.5 – 3.5 litres of clean water will cover approximately 1.25m<sup>2</sup> x 8mm thickness of finished concrete pool surface.
- An average sized pool with tile band (9m x 4m x 1.5m) will require 55 – 60 (20kg) bags of product to ensure sufficient and uniform coverage.

### **IMPORTANT NOTE:**

The information contained in this publication is for general guidance only and in no way replaces the advice or services of professional consultants. The publisher for its use accepts no liability. Licensed or otherwise appropriately experienced contractors who use and recommend Designer Pool Coatings branded products are independent entities and bears responsibility for workmanship and proper application. Neither Designer Concrete Coatings Pty Ltd (the Manufacturer) nor its product distributors accept liability for workmanship or improper product application by independent contractors or their agents or employees and neither for product abuse or damage caused by pool owners.

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