

# EPOTEC NT

AUGUST 2018

## APPLICATION PROCEDURE

## FOR HOME POOL OWNER

### 1. INTRODUCTION:

Congratulations. You have a high-quality epoxy pool coating that will give you many years of great service, when applied and looked after in accord with these notes. We have laid out the notes in easy to follow sections so select those that relate to your pool and see the Appendix

at the end which covers putting into service and long term pool water management.

You can expect a service life of 7 to 10 years plus, when correctly applied and looked after

### 2. OVERALL PROCESS:

For most pools the process is as follows:

- Empty pool.
- Wash all surfaces with detergent and water.
- Check surfaces for defects and repair as necessary.
- Apply acid wash and /or algaecide treatment (if necessary).

- Ensure pool dry.
- Apply Sealer Coat to porous surfaces.
- Apply 2 – 3 coats of Epotec NT.
- Allow to cure and refill.

For most pool owners, this can be done over a 2 – 3week period; emptying to swimming again.

### 3. KEY FACTS:

- Surface preparation is the key; a clean, stable, dry surface will give best results.
- Epotec as with all epoxies slowly wears away so the thicker the coating the longer it lasts. Therefore, don't skimp on applying the correct amount. We have provided you with the correct amount for your pool, as per the sizes you gave us.

- We have a lot of information on our web site too. (Handy Hints [HH](#) and Info Bank [IB](#)) Please refer to them at [diypoolaint.com.au](http://diypoolaint.com.au). See [HH](#) or [IB](#) in these notes.

#### Questions?

Call us for prompt attention - **1300 88 79 20**.

### 4. BEFORE YOU START;

- Look at overall project, including any surrounding works.
- Put into easy to understand steps.
- Complete any gardening, paving, plumbing work first. Painting pool is last.

- Check weather window. Preparation can be done in inclement weather if need be.
- Painting best when temp is 15 – 30 C, light wind and no rain for 2 – 4 days.
- Any water restrictions?

### 5. LEAKING POOLS:

If your pool seems to be leaking, check before you paint.

- Test for evaporation. Fill a bucket of water place at edge of pool and mark water level and the water level in your pool. Wait 24 – 48 hours and measure drop from the respective marks. If it's the same amount, then its evaporation. If pool drops more, it's got a leak.

- Pool Leaks: Let water level drop till it stops. If it at skimmer box, leak is there or in pipes servicing it. If it drops to an outlet or inlet to pool, then leak in those pipes. If it drops to bottom, then usually Hydrostatic valve faulty and needs replacing. [IB](#)

## 6. WEATHER CONDITIONS:

- Preparation can generally be done any time, though in summer, best do early or late in day, when cooler.
- Coating application needs to be undertaken on a dry surface and its needs to be above 13 C for the product to cure. If temperature falls below 13 C, the curing will slow or cease, until the temperature rises again.
- In winter start mid-morning and in summer soon after sunrise. It's not advisable to paint in afternoons in winter.
- If ambient temperature above 30C it may be too hot for you to be in pool.
- If ambient temp about 13 C, consider a pool cover and heater to warm spaces. [HH](#)
- Do not apply if rain is expected with 6 – 8 hours of completing an application.
- Windy, overhanging trees and leaf drop, get a temporary shade cloth.

## 7. HEALTH AND SAFETY: **SAFETY IS NO ACCIDENT!**

- Be careful when working around your empty pool.
- Move pots, ornaments, furniture away from pool area.
- Give yourself plenty of room.
- Do not mix water and electricity, use ground - fault detection system.
- Follow equipment safety instructions.
- Protect eyes, skin, hands, feet, clothes etc when using chemicals, Epotec.
- If grinding, sanding, use full face mas

## 8. EMPTYING THE POOL:

- Can be done by siphon (slowest), a submersible pump, (8 - 16 hrs), or maybe your pool back wash feature.
- Can hire a submersible pump from Coates, Kennard's (\$100 per day) or buy one for about \$250 from a good plumbing supply shop.
- Most pools have a Hydrostatic Valve in the bottom at deep end, so check it's working correctly to let ground water INTO your pool when the pool is empty. It's a safety feature. If not sure, discuss with your pool shop and replace if not working. [IB](#)
- If the valve leaks a little when pool empty you can use a brick to hold the top down and monitor carefully. If more than a little, then construct a stand pipe comprising 1 metre x 50 mm, pvc pipe which is screwed into Iplex 50mm Press Adapt Valve. This is then screwed into your Hydrostatic Valve fitting. [HH](#)
- Fibreglass Pools need added care. They can be subject to movement when empty so best to install cross bracing. 3 – 4 Acrow poles work well (or timber) [HH](#). Also, best to empty in 1/3<sup>rd</sup>s each day to check for any movement and stop if concerned. Consult a Fibreglass Pool Builder if need be.
- How long to leave empty? You should not leave pools empty for too long, 2 – 4 weeks max, as Fibreglass maybe subject to movement and Marblesheen dries out and becomes friable. Pebblecrete may become drummy if left too long.

## 9. EQUIPMENT FOR SURFACE PREPARATION AND APPLICATION. [HH](#)

Have the right equipment will make for an easier and better outcome.

### EMPTYING POOL:

Submersible pump, hire or bought.

### SURFACE PREPARATION:

General: brooms, rags, sponges, bucket, old towels, respirator and suitable filters.

### ABRASIVE BLASTING:

Sand/Abrasive/Soda/blaster contractor will bring everything. Make sure they quote to clear away all the residues, unless you agree otherwise.

### GRINDING – SANDING:

Angle grinder (hire) and plenty of discs, (Flex o Vit from ZEC), (Norton sanding discs) (Josco Flapper or Bluestop) or Orbital sander, goggles, dust masks, overalls, [HH](#) (all from Bunnings). Use dustless / vacuum sanders.

### WATER BLASTING:

Water blaster (1500 psi for general cleaning, 5000 + psi old paint removal) (hire). [HH](#)  
Overalls, gloves, boots, full face mask or goggles. Consider Ultra High Pressure water blasting at about 40,000 psi, (contractor)

## 10. APPLICATION:

### EPOTEC PAINT & SEALER:

Overalls, gloves, (disposable), soft soled shoes, goggles, barrier cream. IR Thermometer, surface temp checking. From Jaycar

### MIXING:

A slow speed power mixer (about 900 rpm), electric drill and paddle from Bunnings etc

### ROLLER APPLICATION:

Roller tray, handles, and extensions. Note, get 2 roller trays in case the paint goes hard in one of them.

### ROLLER SLEEVES:

Draylon, Mohair or similar, solvent tolerant. 270 - 300 mm wide best. Wider makes for difficult corner work. Use 8 – 12 mm nap on Fibreglass and smooth surfaces, 15 – 25 mm for Concrete, Pebblecrete and Marblesheen surfaces. The rougher the surface the longer the nap. Buy good quality sleeves (\$15 – 25 each), as cheap ones leave fluff in the paint. Can use Lamb's wool too. For tight corners, some 70 – 75 mm sleeves useful. Have extra sleeves in case paint goes hard.

### BRUSHES:

Used for cutting in and detail work. Use 30 – 50 mm wide, professional quality (\$10 – 15 each) Cheap ones leave bristles in paint.

### SPRAY APPLICATION:

Airless unit, 2500 – 3000 psi, 529 – 515 tip, Epotec NT is best applied by roller/brush. If you want to spray, call us first.

### MASKING TAPE:

Painters Green or Blue

### LINE MARKING:

Texta jumbo liquid chalk.

## 11. MATERIALS (FOR SURFACE PREPARATION AND APPLICATION)

### POLYESTER BASED:

For fibreglass pools; for worn areas & holes, use fibreglass repair kits (Bunning's.)

### EPOXY GROUT:

For concrete type pools, as needed for repairing drummy areas, holes etc:

**MEGAPOXY PM OR P1**, VIVACITY ENGINEERING. PTY. LTD ph 02 9875 3044

**SIKA'S SIKADUR-31** ph 1300 22 33 48

**SELLEYS AQUA KNEAD – IT**. (Smaller areas, cracks) (Bunnings)

**RUST – OLEUM, FAST PATCH** (Bunnings)

### CEMENT BASED FILLERS:

For concrete type pools, repairing drummy areas and (blow) holes etc:

(must be suitable for water immersion).

**RLA JUST 2 EASY** and **RLA UNIPRIME** (from Tile Shops) Use in thin layers.

**MAXPLUG** (for deeper holes) SWP ph 1300 303 301

**DAVCO SMP EVO\*\***) Need Davco: Ultra prime, SMP EVO, and Davelastic. (From Bunnings or Tile shops)

**BOSTIK PATCHFIX STRUCTURAL\*\*** NT or FR, ph 1800 621 221

**SIKA MONO TOP 723N** (up to 5mm) 352 NFG (up to 75mm) \*\* ph 1300 22 33 48

**MASTEREMACO N 5100\*\*** BASF 1300 227 300. Usually at Mitre 10's.

\*\* - more economical for larger repairs.

### SEALANTS:

For moving joints, cracks.

**EMERSEAL CR** (from Parchem ph 1800 624 322)

**SIKA SIL- POOL**. From Bunnings

**SIKA FLEX 11FC** or **PRO** – from Bunnings

If painting over sealants use Urethane, NOT silicone based sealants.

### LEAKING CONCRETE:

**DRIZORO MAXPLUG, QUICKSET WATERCRETE** or similar from Bunnings, for stopping leaks.

**ARDEX WPM 300** – dealing with Hydrostatic pressure - (Ardex Australia 02 9851 9199)

### RUSTED STEEL WORK:

Anticorrosive primer such **RUSTGARD, COLD GAL, QUIT RUST** or **KILL RUST**, from paint shop.

### CRACKS IN CONCRETE:

(Small cracks non-moving) Good hardware shops

**ARALDITE** - Super strength

**BOSTIK – TITAN BOND**

**SELLEYS – ULTRA CLEAR** or Aquafix, (Bunnings).

Larger non-moving – see Epoxy grout, above.

### CLEANING:

Acid Etching: Hydrochloric acid – from pool shop

Cleaner/Degreaser: Water based detergent such as **DIGGERS HEAVY DUTY DEGREASER** – Bunnings  
Tri Sodium Phosphate can be used.

**Do not use Sugar Soap.**

Algaecide Treatment: Such as **LO CHLOR TROPICLEAR / TROPICAL POOL ALGAECIDE** (or local recommended type, from most pool shops)

### COATING:

**EPOTEC NT EPOXY** packs (Part A Base 4kg in 5 Litre can) & Part B Hardener 1 Kg (in 1 Litre can)

NOTE: A **summer grade** Hardener will be available for very hot conditions and is used in the same manner as the standard hardener. It will be clearly marked and designed for use when ambient temp is above 26 -30 C ( at night)

Total 5kg in selected colour(s), EPOTEC Thinners 4 or 1 Litre cans.

**CONCRETE WB EPOXY SEALER** 4L pack, for porous surfaces or rough (abrasive blasted)

## 12. SURFACE PREPARATION (CLEAN, REPAIR, DRY, READY TO PAINT)

- ALL surfaces MUST be clean, stable, dry. Epotec NT will not adhere to anything else.
- NOTE, Acid does not clean surfaces, ONLY detergent does.
- Epotec is not suitable on Acrylic (Spas), Chlorinated rubber or Acrylic coated surfaces.
- Make sure surfaces to be coated are not subject to hydrostatic pressure. Please contact us for further advice!

### DETERGENT WASH:

Use a 1500 – 2000 psi water blaster with detergent feed, or bucket and broom to remove all dirt plus oil and fat

residues, particularly at water line and sitting or foot traffic areas. Rinse thoroughly.

### ACID ETCH:

Take pool shop Hydrochloric Acid and add this to water in a plastic bucket, about 1 part acid to 2 parts water. Broom on and allow to fizz. Once fizzing stops - rinse

thoroughly to waste. Do not allow to dry out. Wear protective face mask, gloves and overalls plus shoes. Can neutralise surface with Bicarbonate of Soda, then rinse thoroughly.

### ALGAE REMOVAL:

If pool had green – brown – black stains or algae growth, then it needs treatment before coating or the algae may grow through the coating. Porous surfaces are quite susceptible to algae issues. Use the recommended pool

algaeicide from the pool shop and mix about 1 part of this to 20 parts of water. Broom, brush on to the cleaned pool surface late one afternoon, or early evening, and leave overnight. Next day rinse off and allow to dry.

### REPAIR DAMAGED, DRUMMY SURFACES (RENDER, PEBBLE, MARBLESHEEN):

Tap damaged areas to make sure all drummy, loose areas detected. Then carefully remove same so as not disturb adjoining good areas.

To repair use cement based fillers.

Pebble profile re-creation can be done by inserting some similar pebbles into the wet filler, to blend in.

Marblesheen can be repaired easily with the Davco system. Apply Ultraprime to bottom of holes or depressions. Allow to dry. Add 3 parts water to 1 part Davelastic. Take about 1/3 L of this into a plastic bucket

and add about 1 kg of Davco SMP EVO. Mix into paste. Allow to stand 5 mins, remix. Knife in and slightly over fill holes. Allow to dry overnight. Sand flush next day. Use on large or small areas no more than 10mm deep per layer. Use between 5 – 35 C. [HH](#)  
Epotec NT can be used to fill depressions in the floor to 5 mm max. Maybe squeegeed on over primed surface, allowed to cure and then continue full 2 – 3 coat application.

### RUST STAINS:

These signify reinforcement steel corrosion with in the concrete shell and need to be investigated closely. Usually dig out the concrete to FULLY expose the corroded steel all the way around. Keep digging till no more corroded steel seen. Wire brush corroded steel and coat with anti-corrosive primer, liberally.

Refill void with a sand cement plasticiser mix (sometimes a concrete post hole mix if big cavity, until within about 10 – 12 mm of surface. Allow to cure fully. Flush off with sand – cement render or the Davco System. [HH](#)

### EXPANSION JOINTS/ STRESS CRACKS / RANDOM CRACKS IN CONCRETE: [HH](#)

if seen are due to movement and need to be catered for. Contact us if not sure.

Expansion Joints are usually cast into the concrete and need to be left visible, when filled with a flexible, chlorine resistant sealant. Follow manufacturer's instructions.

Stress – Shrinkage Cracks, see Random cracks

Random Cracks may form after pool in use and signify some movement due earth settlement, heat or maybe tree

roots. If hairline, hardly seen and not leaking, maybe left and filled with a spot prime of Epotec. If larger, 1- 2 mm (and more), not moving any more should be filled with an epoxy filler, sanded flush. If leaking, try Drizoro +Maxplug. Moving cracks need to be dug out to form a rectangular cross section (often 15 x 15 mm) and then filled with a chlorine resistant sealant. Follow manufacturer's instructions and do not coat Epotec over it.

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### WATER SEEPAGE – (HYDROSTATIC PRESSURE):

means ground water seeping into pool through concrete shell. Needs to be stopped before painting. Carry out extensive investigation to find source (leaking pipes, underground stream, rain runoff, high water table etc). If possible, try to stop water collecting near pool. If not

possible consider digging out weak, porous concrete of shell and repairing using Drizoro, or similar. Areas of low flow seepage maybe sealed on the inside of pool using Ardex 300 DPM, over clean concrete, before applying Epotec

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## 13. PROCESS FOR POOL TYPES

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### NEW CONCRETE / CONCRETE BLOCK / BRICKWORK (PLASTERED – RENDERED)

- Needs light wood float / sponge finish.
- Block work – Brickwork to be rendered or bagged as minimum.
- No cracks visible. (if visible contact us first)
- Allow all surfaces to cure correctly: usually concrete 28 days, render 14 days.
- Make sure no grease, oils, release agents on surface. Detergent wash.
- Blow holes fill with epoxy or cement based fillers, See Section 10 above.
- Water blast and / or acid etch to remove laitance. See Section 12.
- Allow to dry 2 – 3 windy warm days.

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### OLD CONCRETE / RENDERED / PLASTER SURFACES

- Remove all body fats, oils, with detergent wash.
- Tap surfaces to check for loose or drummy areas. Remove same.
- Repair damaged or drummy areas as needed.
- Check for rust spots, dig out and repair.
- If calcium residues present, carry out acid etch.
- Treat any algae effected areas.
- Allow to dry thoroughly.

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### PAINTED SURFACES

Pools that have paint on already will need to be checked for paint type, then cleaned and prepared accordingly.

Paint type test: To check type of paint, get some white tissues or white rag and make a ball about size of 50 c piece. Soak this with Epotec Thinners or Xylol or Acetone based nail varnish remover or just Acetone. Hold on an area of clean paint, for 20 – 30 secs, wiggle around. Remove and look at the wet area of rag. If a lot of paint there AND if you put your finger on the wet area of the pool and it's like melted cheese on a pizza, (stringy) then the paint is Chlorinated Rubber. Epoxy will have no

reaction though there may be some colour on the wet rag. To test for Acrylic, repeat test using Meths (methylated spirits) and it will be sticky if Acrylic. Both Chlorinated Rubber and Acrylic paints need to be removed before applying Epotec. Usually abrasive blasting is easiest and fastest. Grinding or sanding can also be attempted, but hard going. Follow approach as per epoxy coated thereafter. Ultra high pressure water blast or soda blast will also work [HH](#)

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### EPOXY COATED

- Remove all body fats, oils, with detergent wash.
- Tap surfaces to check for loose or drummy areas. Remove same.
- Repair damaged or drummy areas as needed.
- Check for rust spots, dig out and repair.
- If calcium residues present, carry out acid etch.
- Treat any algae effected areas.
- Allow to dry thoroughly

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### MARBLESHEEN, PEBBLECRETE AND MINERAL SURFACES (INC QUARTZON TYPE) [HH](#)

The surfaces maybe porous, drummy, missing and with algae stains. They need careful checking to ensure suitable for over coating.

- Remove all body fats, oils, with detergent wash.
- Tap surfaces to check for loose or drummy areas. Remove same.
- Repair damaged or drummy areas as needed.
- Check for rust spots, dig out and repair.
- If calcium residues present, carry out acid etch.
- Treat any algae effected areas.
- Allow to dry thoroughly.

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## VINYL LINER POOLS, (NOT ABOVE GROUND POOLS)

Once the liner is removed (along with any related fittings) these may be suitable to paint with Epotec. The floor is usually acceptable as made of solid concrete. The walls however are often some form of panel system and the joints between panels and those between floor and wall units need to be both water tight and non-

moving for a successful outcome. In addition, some panels are not water proof themselves being only 50 mm thick. In general, follow the guidelines here in as per old concrete surfaces. Contact us for specific details if not sure.

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## TILED SURFACES (NOT FULLY TILED POOLS)

Tiled areas around the water line may be painted with care. The tiles need to be defaced (remove all the glaze), the grouting and tiles need to be secure and not cracked. Note that water can get behind tiles and pass

through the grout causing a coating failure at that location. Follow the guidelines here in, as per old concrete surfaces.

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## FIBREGLASS POOLS

These pools can be very successfully upgraded with Epotec. There are several key facts to consider however.

**Fibres Visible:** In some places, you may see the (blue) gel coat worn away and fibres visible. So long as you cannot feel them it's acceptable to leave alone. If you can feel them, then after cleaning the pool surface, sand the affected areas carefully and apply a fibreglass repair patch to these areas. Follow instructions on the repair kit. Allow to cure 2 – 3 days and then make sure the surface is well sanded, to remove waxes and roughen it for the Epotec to adhere.

**Black Spot:** maybe present in the crevices because of Osmosis and broken blisters. (see below)

**Missing Gel coat:** Any small areas of missing gel coat can be repaired using an epoxy filler, once the areas are clean, and all loose gel coat removed.

**Osmosis:** If your pool has it, it's there for the life of the pool and its slow process, where blisters or bubbles form within or just below the gel coat. They can be broken, (sanded out) allowed to dry and then filled with epoxy filler. Deal with the most obvious ones is the usual approach.

- Check that existing surface is not painted, but is (weathered) gel coat.
- Remove all body fats, oils, with detergent wash.
- Check any bare areas to see if fibres sticking out or just visible within resin system. [HH](#)
- Repair damaged areas as needed inc osmosis.

- Sand surface to remove only weathered gel coat, (do not sand into the underlying clear - brown – grey resin surface).
- Treat any algae affected areas. (Black spot)
- Allow to dry thoroughly.

## 14. FINAL CHECKS BEFORE APPLICATION

- If not sure about situation contact us for advice.
- You need to be able to apply the coatings over a 2 – 4-day window of fine, warm, dry weather, so how is the forecast?
- The best time to apply is from about 7 am in Summer (9 – 10 am in winter) and not after 2 pm in summer, (12 noon in winter), so plan well.
- Minimum surface temperature 13C .
- It takes about 4 hrs for one person to apply one coat on average sized pool.
- Make sure the surface is dry. For Concrete WB Epoxy Sealer ONLY damp is ok , no ponded water though.
- Do you want to mask areas (tile lines, fittings) to make for easier application?

**SEALER COAT; CONCRETE WB EPOXY SEALER**

- Concrete WB Epoxy Sealer coat (needed on absorbent-porous surfaces only)
- Open large container (Part A Resin) and add one small container (Part B, Hardener) and mix well with supplied mixing stick for 1 – 2mins.
- Add clean water to near top of large container and mix well.
- Apply immediately. You may add a further 10 – 15% water as needed to aid application on very absorbent - porous surfaces.
- Working life is about 30- 60 mins @ 20 C. Do not use once it goes stringy – thickens.
- Goes on white, dries clear.
- Wash out gear etc with detergent and water.
- If using part packs the ratio is: 10:6:8 Resin A: Hardener B: water, all by weight
- Allow to cure overnight and no longer than 72 hrs, before overcoating.
- Apply second coat if needed.

**CONCRETE WB EPOXY SEALER COAT COVERAGE RATES**

Coverage rates	Bare Concrete	Sand blasted	Marblesheen	Pebblecrete	Quartzon type
Sq M per L mixed	8 - 12	7 - 10	6 - 8	5 - 7	5 - 8
Sq M Per 4 L pack	32 – 48	28 -40	24-32	20 -28	20 - 32

**COLOUR COATS EPOTEC NEW TECHNOLOGY (NT)**

- Usually 2 – 3 coats needed, (3rd coat on high wear areas like steps, beaches)
- Open large container (Resin A) and scrape down walls and lid, add to body of resin. Open small can (Hardener B) and add all to the Resin tin. [HH](#)
- Mix ALL with a slow speed POWER mixer for 2 – 3 mins till homogenous. Do not entrain air.
- Use Immediately, don't wait at all.
- Place in roller tray (or similar) and start cut in. (Brush – Roller) If too sticky ADD a small amount of Epotec Thinners (Supplied)
- NOTE: use least amount of thinners to get good consistency and no more than 5 %.
- After cutting in along selected areas, start painting the pool (see diagram on page 11)
- Best to apply in “H” pattern covering about 1 – 2 sq m at a time. Spread out up /down and left /right for uniform thickness. [IB](#)
- “Lay off” in **one direction** and move to next area to be coated.
- Keep to coverage rates as spreading too thinly will reduce life expectancy.
- Generally, apply slightly more material at high wear areas for each coat.
- Allow to cure overnight and no more than 72 hours between each. If longer will need a light sand between coats.

Characteristics	Temperature	Value
Pot Life (max time to use after mixing)	15C	1 hour
	25C	45 mins
Minimum Application Temp	13C	ambient/ground.

Cure time, 50% RH,	15C	25C
Touch Dry	6 -8 hours	3-5 hours
Recoat	minimum 16 hours	min 8 hours
Full Cure	7 days	7 days



EPOTEC NT, COVERAGE RATES, VARIES DEPENDING ON THE SURFACE ROUGHNESS.

Sq Metres	Smooth Surface	Medium Surface	Rough Surface	Very Porous Surfaces
Per 5 Kg, Kit or Pack	<ul style="list-style-type: none"> <li>• Fibreglass</li> <li>• Painted</li> </ul>	<ul style="list-style-type: none"> <li>• Plaster</li> <li>• Concrete</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete</li> <li>• Marblesheen</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete</li> <li>• Marblesheen</li> <li>• Pebblecrete</li> <li>• Quartzon</li> </ul>
1st Coat	28 -30	23 - 25	18 - 22	16 - 20
2 <sup>nd</sup> / 3 <sup>rd</sup> Coat	28 -30	25-28	22 - 25	18 - 22

Desirable thickness (film build), per coat 160 microns dry approx. 320 microns dry in two coats.

(This is about 4 – 6 times thicker than ordinary house paint.)

#### 16. ADDED NOTES ABOUT BEFORE, DURING AND AFTER APPLICATION

- Check your delivery against what you need (original quote- invoice) to make sure all is there.
- Select an area where you can mix materials (On flattened carton, old sheets) away from the pool edge and traffic areas. Often the shallow end of the pool works well.
- We recommend masking all tile lines, fittings etc first, rather than using your eye. Remove masking tape as soon as last coat applied. [HH](#)
- Be careful not to add any unmixed material (upper insides of large tin) into the roller tray etc. as this will leave partly cured material on the pool surface.
- (If mixing several packs at a time, write on each one the time, so as to use sequentially

#### IS SURFACE REALLY DRY? [HH](#)

Some areas can seem dry on the surface, such as concrete and Marblesheen/Pebblecrete yet in cooler winter weather may be quite wet inside. Check for Hydrostatic pressure issues too. [\(HH\)](#) If too wet, once painted with EPOTEC NT it will draw moisture under the coating and may cause blisters to develop. This will be more likely with darker EPOTEC NT colours. Such blisters will break when pool full and require recoating. Best deal with it when pool empty and they show up after first coat. Cut back, allow to dry out for several days and recoat.

**To check** if sufficiently dry, tape a piece of clear polythene sheet (400 x 400 mm) and leave for at least 16 hours. Do this over several areas of the surface. If there is moisture (droplets) on the underside of the plastic sheet, then it indicates there is too much moisture for good adhesion. Allow pool to dry out before application.

Before application check weather conditions. What is expected over the next day or so?

#### TEMPERATURE:

The surface temperature (not air temperature) is important. Needs to be ABOVE 13 C for cure to take place. Will stop curing if temperature drops below this.

Curing will restart as temperature rises again. Ideally do not apply if air temperature is above 33 C as too hot **for you**.

#### DEW, RAIN OR WATER ON COATING:

Don't allow water/dew to form onto uncured/partially cured paint, as it will "bloom". (This is aesthetic only). [HH](#) (More detail in the attachment - after this document)

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### PAINTING SMALLER AREAS:

To paint smaller areas, (eg Spas, Swimming lines) and the normal kit is too big, then lesser amounts can be mixed in a clean plastic container (2 Litre Ice Cream Container) in the same manner as described below. Weigh out (not by volume) in the ratio of 4 parts resin to 1-part hardener. E.g. **1 kg Resin, 250 gms Hardener**. This will cover approx. 5-6 sq M per coat. Use kitchen scales to weigh out. Mix well. DO NOT guess by volume, but **weigh** out

amounts. Incorrect ratios will result in brown staining or uncured EPOTEC NT.

There is also a 1 kg Kit available to save having to split a pack.

We also have available a Touch Up kit which covers about 1.5 Sq M in ONE coat.

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### BATCH NUMBERS

EPOTEC NT is made in batches and to ensure you have a uniform final colour make sure the batch numbers on the Resin tin (large one) are all the same for the final

coat. Different batch numbers may be used in first coat. Batch number is on white printed label and will be 18xxxx, such as 180322

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### NON-SLIP SURFACES:

EPOTEC NT may be somewhat slippery for the first few months as it settles down. If this may be an issue on steps and ramps there are 2 approaches you can use.

Lightly sand with wet and dry paper any affected areas, to leave a slightly roughened surface, without sanding through the coating! This would normally happen after pool has been put into service.

For a more definitive non-slip finish at time of application (On therapy pools, ramps etc), apply first coat as per

normal instructions, then while still wet, "Blind Out" with washed beach sand (about 1 – 2 mm size particles) so you see only the sand and no EPOTEC NT grinning through. Let cure overnight. Before applying second coat sweep / vacuum up loose sand and apply second coating as per normal instructions. ([HH](#) for more detail). Other non-slip materials can be used such as cork chips, ground rubber and glass balloons. Follow same procedure for them.

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### MURALS AND SIMILAR:

You may like to have murals on the pool walls using EPOTEC NT in selected colours. (See Project Gallery for ideas) These can be done in the following method. Prior to painting, draw out tracing paper tacked to the surface, what you want and where. Then remove and cut to shape. Transfer shape to heavy grade clear plastic film. Once pool painted, and within 72 hours of last coat, tape up pre-cut stencils and draw or paint in outline etc. Remove stencil and complete painting. You can use EPOTEC NT 1 Kg or Touch Up Kits for this. If good at free hand, or have an artist friend, then do so without the use

of stencil. As a comment keep murals near upper 1/2 of wall to see to best effect. On floor anywhere seems fine. If too deep in water effect is often lost. To make different colours mix up sufficient EPOTEC NT Resin and Hardener in the key colours and then mix together in any colour mix you require much as for oil paints. You have about 45 -60 minutes working life. (don't forget to mix resin and hardener first, before mixing different colours together to get the colour you need). There are a good range of colours in touch up kits to create a wide range of colours and thus images.

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### SPRAY APPLICATION:

EPOTEC NT may be spray applied. Use an airless unit of 2500 - 3000 psi and tip of about 519 size. May find a 515 tip better. Keep spray lines as short as possible to reduce clean up. Also, add up to 5% EPOTEC thinners to aid application. EPOTEC NT may pin hole if not sprayed

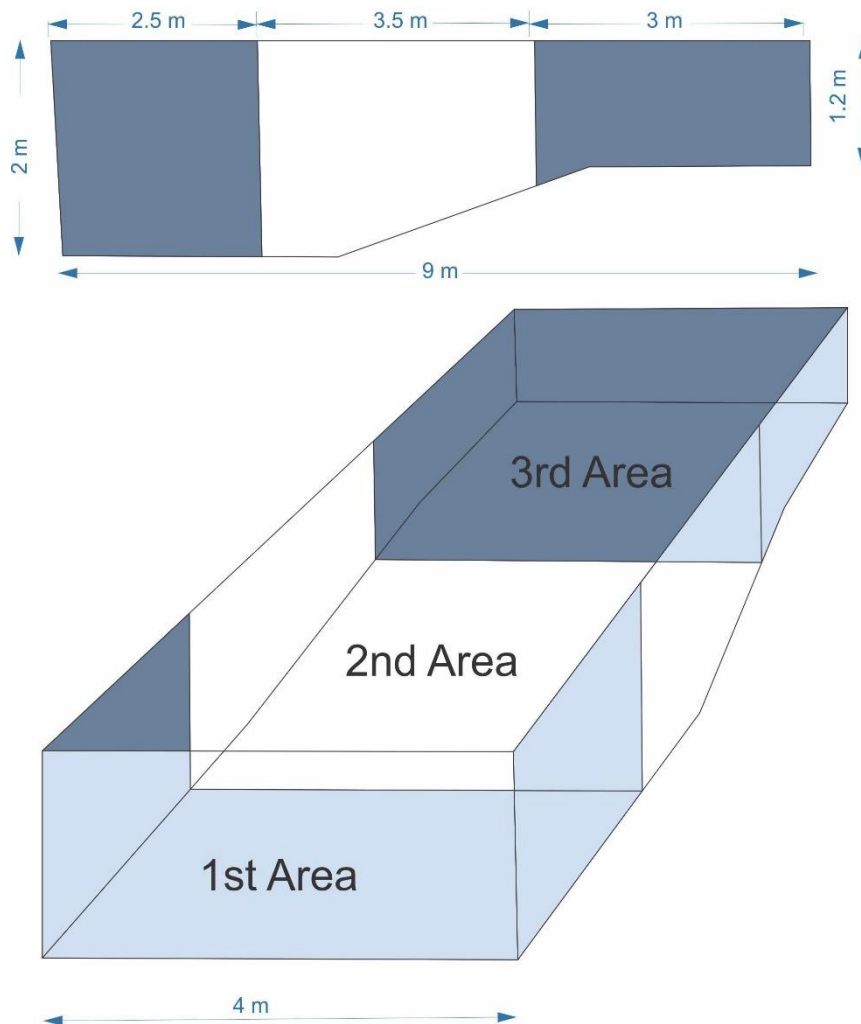
correctly. Watch coverage rates. (See section 15 above ) Generally even on the biggest projects roller application provides a good, labour efficient finish. (As a guide a 5-man spray team (one sprayer, 4 support) can apply one coat on about 600 sq M per 6 hr day).

## 17. HOW MUCH MATERIAL, WHERE TO START PAINTING AND WHERE TO FINISH.

- Here is a general guide as to how to figure on how much material to use.
- It also sets out where to start, how to proceed and where to finish.
- Note you pool maybe a different size or shape, so adapt accordingly.

### A Typical Pool

(all values approximate)



Refer to Page 12, for more details

## IN OUR EXAMPLE

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### 1ST AREA TO PAINT

Starting at the deep end, we find the end wall being 4 M wide and 2 M deep covers 8 sq. M.

Coming along the sides of the pool until will be 3.5M long and 2 M deep so covers 5 sq. M, and we add the 2 sides together to get 10 Sq. M.

We also need to add in the bottom area which is 2.5 M long and 4 M wide so covers 10 Sq. M.

So we have  $8 + 10 + 10 = 28$  sq. M or approx. enough surface for ONE mixed 5kg pack/kit.

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### 2ND AREA TO PAINT

Moving along the sides 3.5 M on both sides will give a strip down the side, across the bottom and up the other side of: Bottom 3.5M long x 4M wide = 14sq M and Walls 3.5M long x 1.8 M av deep = 6.3 sq. M and we have 2 walls.

So  $14 + 6.3 + 6.3 = 26.6$  Sq. M. or approx. enough surface for ONE mixed 5 kg pack/kit

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### 3RD AREA TO PAINT

Then we come to the last strip which includes the shallow end wall and a depth of say 1.2 M.

End wall  $1.2 \times 4$  M = 4.8 Sq. M, the bottom 3M x 4 M 12Sq. M, plus each side wall  $1.2$  M x 3 M = 3.6 sq. M,

so total area is  $= 4.8 + 12 + 3.6 + 3.6 = 24$ Sq. M. or approx. enough surface for ONE mixed 5 kg pack/kit

Here because it's shallow there is more wear and tear on the coating, so we make it thicker, (less sq M to cover with 1 pack) and thus it will last longer

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**THE RESULT IS 3 BANDS ACROSS THE POOL WHICH GIVES AN AREA OF;  $28 + 26.6 + 24 = 78.6$  SQ. M.**

You can easily mark out the extent of each band using stones/ (bricks, whatever) placed along each side on the walkway at, 2.5, & 3.5 Metres apart respectively to guide you and ensure you have the right coverage rates. This would be for the first coat and require 3 packs. Same for second coat.

Some pools may need odd numbers of packs, like 7 or 9 etc. Use 4 packs on first coat and 3 on second as example. For the second coat, adjust so you have correct number of stones and will use 3 packs etc. That is just move them a bit farther apart and remove one set.

If you end up with one pack left after last coat, do use as a 3rd coat on the next day, and apply to all ledges, steps,

swim outs etc as this is where the high wear is, and extra thickness is needed for a long life. We have figured out how much Epotec you need based on your pool dimensions and type of surface provided to us.

Please note this is an example, look at your own pool and determine the correct size. **It's only a guide to help you see how far each pack should go.** We just want you to have more material at the shallow end and not use it all up at the deep end!!

For other sized pools use this idea to get a good understanding of the coverage rates to be used

## IMPORTANT INFORMATION

### MAINTAINING YOUR POOL WATER AND COATING FOR MAXIMUM LIFE

#### INTRODUCTION

Now that you have a “new” pool coated with EPOTEC NT a few simple techniques will keep it looking great for years.

EPOTEC NT is designed to provide a long lasting, functional and protective finish, while looking good.

As with all products, a longer life will be achieved when it is looked after correctly.

#### CURING

EPOTEC NT should be allowed to cure for 5 (Summer) – 7 (Winter) days before filling the pool. This is to allow a full cure to happen before subjecting it to chemicals. After the first 6 - 8 hours (at 25C) or so of application any rain that falls on the EPOTEC NT will have little impact and may be left in the pool unless it's dirty water, (or rain run off over tiles/grout, pavers) in which case it may stain the new surface and should be removed.

Cold overnight conditions (dew), high humidity, rain, garden water runoff and/or frosts may cause a white blooming **on** the surface, within the first few days. Leaking pipes and valves may create the same effects. Also, water

running over cement, tiles, pavers or grout may also cause lime staining on EPOTEC NT.

This is aesthetic only and will not impact on the performance of the EPOTEC NT. It will look unsightly and can be removed, though it will usually wear off over 3-6 months, once pool is in service. To remove residues, use a Scotch Brite Pad (or similar) and a mild abrasive like Ajax or Vim. It may slightly dull the surface. Diluted vinegar maybe used too. If hard to remove all residues and it's aesthetically not acceptable a reapplication of a coat of EPOTEC NT will be required.

**Do Not** enter pool until it's sufficiently cured, usually 16 – 24 hours after any application.

#### BEFORE FILLING

Any leaves, animals, insects should be removed as soon as possible so they don't stick or stain the curing EPOTEC NT. Remove by careful scraping, sanding or washing. Leaf

stains usually disappear once pool is in service. Be careful when accessing pool as coating will be slippery.

#### FILLING AND CHEMICALS

Check that the Hydrostatic valve (if fitted) is working correctly. Fill with clean water. Allow to stand 24 - 96 hours max, then add chemicals (inc Salt) **making sure they are well diluted first. Then mix into the pool water completely.** Any chemicals that are added directly may sit on bottom and result in concentrated chemical attack or stains and reduced life expectancy to the EPOTEC NT.

Follow professional advice to get pool into the correct chemical balance.

## POOL WATER MAINTENANCE

### Please Print this off & keep with your Pool Service Papers

Whether you care for your pool yourself or use a pool service professional, you should settle for nothing less than the best, for your water (and your pool), at all times.

For maximum life of the coating, the pool water quality should be maintained continuously in accord with accepted pool water management practices and the following criteria;

- pH 7.2 - 7.5, Water temperature between 5 – 35 Deg C
- Total Alkalinity 80 ppm (min) to 180 ppm (max)
- Chlorine levels 2 – 3 ppm (parts per million)

- Calcium Hardness should be closely monitored and kept within 250 – 350 ppm
- Langelier Saturation Index (LSI) from +0.3 to – 0.3
- Pool regularly cleaned in accord with generally accepted practice,
- Pool chemicals to be correctly mixed and not dumped into pool,
- Pool remains full of water
- If using a Cu/Ag system monitor & keep ion concentration low to prevent staining.

- If having your pool professionally maintained then make sure they set the testing equipment to painted surfaces, not any other. Otherwise incorrect chemical dosage may result, shortening the life of the EPOTEC.
- Also, Total Alkalinity should be carefully maintained to prevent a powdery surface developing with attendant "pick up" on hands and feet and a shorter life.

#### SURFACE CLEANING:

The EPOTEC NT is resistant to surface contamination and fungal growth. However, over time the surface will tend to change with the attachment of slime and fat build up. This can be removed easily by giving the surface a "wash" with a broom or brush. The most affected areas will be at the

water level, and within 300 mm of it. Body fats, suntan lotion and other matter that floats on the water surface will tend to stick to the sides of the pool. A regular scrub (bi monthly and more often in times of high usage) for this area should be a part of the maintenance program.

#### CALCIUM BUILD-UP:

One of the by-products of pool chemicals is the formation of calcium deposits on walls and floors. Calcium comes from the hardness of water, Salt, or the "Chlorine 65%", in previous section. This can usually be seen as a whitish "scum". It may be noticed if you wipe the surface with your hand and you see a white "cloud" in the water. The EPOTEC NT will be glossy underneath. It should be removed as can

act as an abrasive when pool cleaners in use and reduce the life of EPOTEC NT.

Note that at higher water temperature, Ca salts can drop out of suspension and leave a white film.

It can be removed by using a flocculating agent. See your pool shop for specific details. (Contact us if not sure).

#### COLOUR CHANGE:

EPOTEC NT being a functional epoxy coating is modified by the UV radiation from the sun. It will tend to chalk and lose its colour somewhat. This will happen nearer the surface. Darker colours will change more so than lighter colours. The performance of the EPOTEC NT. is not affected by this,

however it will tend to lose some gloss and take on a slight yellow hue.

Little needs to be done to prevent this, though if you have a pool cover, use it to reduce the UV impact on the EPOTEC NT.

#### DAMAGED AREAS:

In the unlikely event your pool surfaces are damaged and the film integrity of the EPOTEC NT punctured, there is the prospect of water from the pool getting behind the EPOTEC NT. This will also allow the pool water with its corrosive salts, chlorine and other chemicals to come into

intimate contact with the now unprotected concrete. Chemical attack of the concrete is possible with the result that it will fail, and there by undermine the further integrity of the EPOTEC NT. Any such damaged areas should be repaired promptly. We have touch up kits for this and they can be used underwater.

#### SUMMARY:

To get the best performance from the EPOTEC NT, look after it well, cleaning it every now and then. Keep the pool water in tip top condition throughout the year.

Also note that chlorine, pool acid, and many other pool chemicals can do great damage to you and your pools health if not used correctly.

Contact the Applicator or us if you have any questions.

You may need to call on other professionals to assist you in obtaining the very best in pool water maintenance.

One web site you may like to visit for more information is SPASA and their Fact Sheets at: [www.spasa.org.au](http://www.spasa.org.au)

**NOT SURE! .....call us for prompt help 1300 88 79 20**

**[WWW.DIYPOOLPAINT.COM.AU](http://WWW.DIYPOOLPAINT.COM.AU)**

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