

# TECHNICAL DATA SHEET

## EPO100TP TINTED POOL EPOXY

*100% Solids, Solvent Free, Low VOCs*



### Description

Pool Epoxy is a 100% solids, two-pack cycloaliphatic amine cured epoxy resin. EPO100TP Tinted Pool Epoxy is high gloss, self-levelling and colour stable. Designed for use in a range of swimming pools where a lasting, durable solution is desired. Pool Epoxy's resistance to chemicals makes it ideal for use in wet environments.

### Recommended Uses

- New cement render
- Concrete swimming pools
- Previously painted epoxies
- Water tanks (non-potable)
- Fish ponds
- Fibreglass pools

### Features and Benefits

- Australian Made
- High gloss
- Seamless, easily cleaned and maintained
- Excellent adhesion with high durability
- Tenacious bond to most substrates
- Self-levelling and self priming
- Low VOCs (Volatile Organic Compounds)
- Low viscosity
- Excellent abrasion resistance
- Good chemical resistance
- Pre-coloured / tinted
- Solvent free
- APAS approved (Australian Paint Approval Scheme)

### Product Information

#### Mixing Ratio

(3:1) 3 Parts EPO100T Part A : 1 Part EPO100T Part B

#### Coverage

3-8m<sup>2</sup>/L depending on the system, application, and porosity of the surface.

#### Dry Film Thickness

150-300 µm depending on the system, and application.

#### Shelf Life

2 years. Store in a cool, dry area and out of direct sunlight.

#### Heat Resistance

Epoxy will not begin to soften until 90°C.

#### Clean Up

Clean tools with APC Thinners while still wet and discard rollers and brushes.

#### Cure Times

**Pot life:** 45 minutes  
**Work time:** 45 minutes  
**Thin tack free:** 12 hours  
**Thin shore hardness:** 72 hours  
**Max recoat time:** 72 hours without sanding

#### Refill Times

**Summer:** 10 days  
**Winter:** 15 days

#### Testing Information

Cure times completed at 25°C in a 100g container or at 200µm.

#### Maintenance

Refer to APC Clean and Care guide.

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### Environmental Conditions

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity, the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoat ability, and inter-coat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as “amine bloom” or “amine blush”.

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent application. In some cases, partial or complete re-priming may be necessary. Attention also needs to be paid to the substrate temperature which should be at least 10°C and preferably 5°C above the dew point during the curing phase. The ideal humidity is less than 75%.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates, and environmental conditions including the substrate and air temperatures, humidity levels, and dew point readings during both the application and curing process. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

### Pre-Application Precautions and Information

- **Do not enter the pool for 7 days after completion.** Take care when walking in the empty pool as the smooth surface is very slippery when wet.  
Any leaves or insects that may have been trapped in the surface of the coating while drying may be removed by lightly scraping off after 7 days. Leaf stains on the surface will generally disappear within a week or so after the pool is filled and chlorinated.
- Rainwater collected in the pool will not harm the coating but may leave a blooming mark as explained in point 2.
- The pool should not be filled for 10 days after completion in summer or 15 days in winter.
- In summer, promptly after filling the pool, new water should be ‘super chlorinated’ for the first night and sediment on the floor vacuumed. Continuous filtration should be carried out for 24 hours until the water becomes crystal clear. Salt in saltwater pools may be added as soon as the pool is filled.  
**NOTE:** In winter these programs may be delayed by up to a week after filling.
- **MOST IMPORTANT:** Total Alkalinity (TA) of pool water should be adjusted to 160 ppm and maintained in the range of 140-160 ppm. The addition of 1kg bicarb soda (cooking soda) per 8,000L is usually sufficient for new or fresh pool water (9kg/72kl or 10kg/80kl). White powdery deposits on the coating surface generally indicate low Total Alkalinity (TA). If these powdery deposits are allowed to develop unchecked, this may result in reduced life expectancy of the coating due to the abrasive action of automatic pool cleaners on the coating. An early indication of this is “pick-up” of colour on hands and feet.
- **NB:** CHALKING is a natural process during the life of the epoxy coating and is not a result of any defect in the epoxy. However, by minimising chalking, you will maximise the life of the painted surface. To minimise chalking, Total Alkalinity (TA) should be checked regularly and maintained within the range of 140-160 ppm all year round.
- Maintain a pH between 7.2-7.6.
- **CLEANING/MAINTENANCE:** In much the same way as you would cut back and polish your car from time to time as well as more frequent washing, we strongly recommend that you make a routine of vigorously brushing the walls and floor areas of the pool followed by 8 hours filtering. This should be done monthly in summer (every 6-8 weeks in cooler periods). This routine will help present a smooth, glossy, hygienic (non-algae supporting) surface to the pool water and will greatly enhance the longevity of the epoxy coating, particularly when using calcium hypochlorite.

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### Surface Preparation

- Ensure the concrete is sufficiently cured to the recommended minimum of 28 days from completion.
- Diamond grind the substrate. The surfaces must be clean, dry, and free from all traces of loose material, old coatings, curing compounds, release agents, laitance, oil, and grease, etc. **If the pool has been previously painted in chlorinated rubber, EPO100TP CAN NOT be applied over the top. Chlorinated rubber must be 100% removed.** This must be completed by diamond grinding or a suitable abrasive method.
- To check that all traces of oil and other contaminants have been completely removed, sprinkle a few drops of water over the surface. If all water is quickly absorbed, the surface is sufficiently oil and grease-free.
- If water forms into globules that remain on the surface, further thorough treatment of the substrate is necessary.
- Substrate compression strength should be at least 25MPa, cohesive bond strength at least 1.5MPa, and moisture content below 4%.
- Repair and fill cracks with EPO100EP Epoxy Putty or APC Concrete Repair Kit.

**It is recommended to read the Installation Instructions on specific pool shell types.**

### Product Application

- If using more than one kit, compare the epoxy base (Part A) for colour matching. Base colours may vary slightly between different batches. If the colours are noticeably different, mix all the epoxy base containers together to obtain a uniform colour before mixing with the curing agent.
- Mix EPO100TP Epoxy Resin Part A thoroughly prior to combining with EPO100TP Epoxy Hardener Part B.
- Mix 3 Parts A with 1 Part B (3:1) by volume. Mix with a drill mixer at a slow speed for 2 minutes. Ensure the sides and bottom of the container/bucket are mixed. Tilt the drill to the side to ensure the product on top of the container/bucket is mixing in with the product on the bottom. In normal curing conditions, the EPO100TP Coating Kit does not require an induction time and coating can begin immediately after mixing. For colder climates, see product cautions for further information on mixing and induction times.
- For system-specific instructions, consult the All Purpose Coatings Installation Instruction documentation, located on the website.
- It is recommended that the first coat of EPO100TP be applied with up to 10% APC Thinners to ensure high penetration and adhesion to the coating substrate. Subsequent coats can be thinned but, a sufficient curing time will be required to allow the solvent content to evaporate from the product before re-coating or top coating when used as part of an All Purpose Coatings system. The re-coat time is typically, 24 hours at 25°C. Apply using a brush or lint-free roller.

### Physical Properties

<b>Solids Content</b>	100%
<b>Impact Resistance</b>	AS 1580.406.1: high
<b>Compressive Strength</b>	ASTM D695: 12,000 PSI
<b>Tensile Strength</b>	ASTM D638: 3,900 PSI
<b>Elongation at Break</b>	ASTM D638: 7.00%
<b>Taber Abrasion Resistance</b>	AS/NZS 1580.403.2-2006: 133mg loss(mg of loss/1000 cycles) H022 wheel; 1000 grams weight
<b>Water Absorption</b>	ASTM D570: 0/07% (2 hour boil)

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### Physical Properties (Continued)

Flexural Strength	ASTM D790: 7.800 PSI	
Shore D Hardness	ASTM D2240: 84	
Bond Strength to Concrete	100% concrete failure	
Heat Distortion Temperature	ASTM D648: 50°C	
Volatile Organic Compounds	AP-T002: very low	
Resistance to Chemical Spills (7 days at 25°C)	Ammonia solution (20%)	Sodium hydroxide (30%)
	Sulphuric acid (30%)	Kerosene
	Lactic acid (5%)	Aviation fuels
	Sodium chloride (50%)	Petrol
	Tannic acid	Hydrochloric acid (20%)
	Acetic acid (5%)	Toluene

### CAUTION

- The mix ratio is calculated by product volume. **NOT BY PRODUCT WEIGHT.** Mixing products by weight may result in an unsatisfactory cure time or failure of the mix to cure entirely.
- To achieve optimum results in colder climates, you may need to warm the resin or introduce an induction time before application. This will jump-start the curing process. For further information, consult All Purpose Coatings technical advisers.
- Exposure to sunlight and UV radiation can result in discolouration and chalking of the cured surface. While this will have no adverse effect on the protective functions of the coating, the system can be finished with a UV-stable and protectant top coat such as Tetrathane.
- Pre-application precautions must be read prior to application. For further information consult All Purpose Coatings technical advisers.
- Lighter colours may appear translucent when applied as a plain coating and may require additional coats.
- If the pool has been previously painted in chlorinated rubber, EPO100TP CANNOT be applied over the top.
- All solvents, corrosives, and spills should be cleaned up as soon as possible.
- If recoating after 72 hours since the last coat, a mechanical bond will need to be made by sanding the previous coat.**

**In an emergency, contact the Poisons Information Centre on 13 11 26 or a doctor for advice. IF THE SITUATION IS LIFE THREATENING, DIAL 000 IMMEDIATELY.**

**DISCLAIMER:** Please ensure you read the SDS & TDS thoroughly & carefully before the use or application of any All Purpose Coatings product. These documents contain information in context to how you will apply the product, including if it is being used in conjunction with any other products or systems, and to what surface the product will be applied. All-Purpose Coatings Pty Ltd does not accept any liability either directly or indirectly for any losses that arise from the use or application of the product in accordance with any advice, specification & recommendation given by the companies' documentation or representatives at any point in time. Application, performance & safety data may change from time to time. It is the user and/or applicators' responsibility to ensure they have the latest copy of any documentation pertaining to their project. Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates and environmental conditions including substrate and air temperatures, humidity levels and dew point readings during both the application and curing processes. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.