



# GENERAL POOL CARE GUIDE

## TROUBLESHOOTING FILM DEFECTS

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### 1) Blooming / Water Marking

Care must be taken to prevent water coming into contact with a curing Epoxy film from sources such as rain, dew, leakage from the hydrostatic valve or even high levels of humidity. If moisture has been allowed to come into contact with a **LUXAPOOL Epoxy** paint film within the first 3 hours of cure, then the chemical integrity of the film may be compromised, and as such the entire coat of paint should be removed and a new coat applied. After 3 hours of cure, the chemical integrity of the film will not be damaged, however surface defects such as surface bloom can still occur, which will present as a milky discolouration or haziness on the surface of the **LUXAPOOL Epoxy**. Surface bloom will act as a barrier between successive coats of epoxy leading to delamination, and must be removed if additional coats are intended to be applied. To remove surface bloom from intermediate coats, the epoxy should be allowed to set tack free, and then lightly sanded with very fine wet & dry type sand paper. All residue should be removed with a vacuum cleaner before continuing to the next coat. In the final coat this bloom can be removed with a plastic scouring pad and a mild abrasive. Alternatively, if left untreated, the bloom will generally disappear within a few weeks of the pool being filled with water.

### 2) Foreign Matter or Bitty Finish

Leaves, grit or insects that may have been trapped in the film during application of initial coats may be removed by lightly sanding the affected area. Successive coats can then be applied as usual. If foreign matter has been trapped in the final coat during cure, it may be removed by GENTLY scraping and sanding the area after full cure of 5 days. Leaf stains on the surface will generally disappear within the first week or so of the pool being filled and chlorinated.

### 3) Staining / Discolouration

Stains may occasionally appear on the pool coating. These are normally yellow in colour and result from excess hardener leaching to the surface. This will most often occur within one month of filling the pool, and will gradually disappear as the pool surface chalks. Faster removal of the stains may be aided with general cleaning and maintenance (as described later in the guide) but should disappear by itself within 2-4 months depending on the season.

### 4) Bubbling / Solvent Boil

Bubbling or solvent boil occurs when volatile solvents in LUXAPOOL Epoxy, or air in the application surface expand with heat, and then become trapped in the curing paint. This may result if the paint is applied to a hot surface, if the product itself is too hot when applied, or if the applied paint experiences any heating (e.g. from sunlight) during the early stages of the curing process. To prevent bubbling, avoid painting under high temperature conditions (over 30°C), begin application earlier in the day (around 8-11am) while the surface is still cool, and ensure that all LUXAPOOL Epoxy products are stored out of direct sunlight and kept in a cool place throughout application. Also consider the following application tips:

- Especially for porous cement render or marblesheen surfaces, apply **LUXAPOOL Epoxy Primer-Sealer** as the initial coat.
- Ideally, work below a shade-cloth which will moderate direct sunlight onto the surface.

- Commence application on the pool side that has been exposed longest to the sun (western edge), then work to the south edge, then to the east, to the north and finally onto the floor.
- Avoid application of 'thick coats', and focus on filling any observed surface porosity using a stronger rolling action.
- Allow the painted areas to stand for approximately 10-15 minutes and then observe whether any small bubbles have appeared. If so, they can be eliminated by **lightly** draping a wet roller (not loaded) over the surface. (Do not attempt this process after 30 minutes of curing).

If bubbling is experienced in a fully cured film, (especially important in initial coats) sand the affected area smooth with 150 grit sand paper, and then remove all residue before applying successive coats.

### 5) **Blistering**

Blistering is the result of poor application techniques, and occurs because liquids in or under the applied film (such as water or solvent) are expanding, forming voids within the coating. The presence of blisters will ultimately result in cracking and peeling of the epoxy coating. To prevent blisters, avoid painting over a moist surface, painting under high temperature conditions (over 30°C), painting over a surface that has been curing for longer than 24 hours and painting over a surface that have been improperly prepared. In the event that blisters are identified in an epoxy coating, the entire coat of paint must be mechanically abraded back to a stable and sound surface. After all residue has been removed, any additional surface preparation should be performed before reapplication of finish coats.

### 6) **Delamination / Peeling**

Delamination is any loss of adhesion of the paint film from the surface or between coats, and may become apparent anywhere from days to several months after application. It may appear as small flakes to large sheets coming away from the surface of the pool. Delamination from an application surface results from poor surface preparation. To prevent this, always ensure that the surface is clean of dirt, oils, greases or other contaminants, and that the surface is thoroughly dry before application. For unpainted granular surfaces (such as cement render or marblesheen), an acid wash is recommended to promote adhesion, followed by application of **LUXAPOOL Epoxy Primer-Sealer** as the initial coat. Delamination occurring between coats occurs because the initial coat has completely cured and has become too hard before additional coats have been applied. This might be seen when applying a new coat to an old, previously painted surface, or when applying successive new coats. To prevent inter-coat adhesion issues, avoid painting under high temperature conditions (over 30°C), and always apply successive coats between 20 and 24 hours after a previous coat. For old, previously painted epoxy surfaces, or newly painted surfaces that have been allowed to cure beyond 24 hours, it is necessary to thoroughly abrade the entire pool surface to a dull finish and remove all sanding dust prior to application of the next coat to assure adhesion.

### 7) **Chalking**

Chalking is a natural weathering process of an epoxy coating, not a result of a defect in the paint or application process. It will appear as a fine powdery deposit on the paint surface, and may retain some of the colour of the coating. Early chalking may become apparent after an epoxy is applied at low temperatures, and as such it is recommended that care be taken when applying during winter months. However, the prevalence of chalking is primarily dependent upon pool chemistry, including both the levels of chemicals used and the stability of these levels, as well as the intensity of UV light to which the epoxy coating is subjected. Chalking may also be accelerated by a deposition of soluble salts from the water onto the coating surface, or by allowing existing chalk to build up. By avoiding factors that cause chalk acceleration, the rate of chalking can be minimised, and this will increase the life expectancy of the epoxy coating. Maintenance of pool water chemistry, and regular removal of soluble salts and chalk build-up from the surface is recommended.



## MAINTAINING WATER CHEMISTRY

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### **1. Before adding chemicals**

A newly painted pool should not be filled with water for at least 10 days in summer or 14 days in winter. After filling, filter newly added pool water for a minimum of 12 hours before addition of any chemicals.

### **2. Adding chemicals**

Any accumulation of chemicals on a newly painted surface may cause bleaching or colour change. To avoid this, all additions of pool chemicals or salt should be performed by first mixing them in a bucket of water, and then quickly dispersing the dilute solution into the pool with agitation. For salt water pools, salt may be added immediately after initial filtration. For chlorinated pools, SUPER CHLORINATE on the THIRD night after filling, vacuuming any sediment from the floor the next morning. Continuous filtration should then be carried out for 24 hours or until the water becomes crystal clear. NOTE: In winter these programs may be delayed by up to a week after filling.

### **3. Balancing and maintaining water chemistry**

If your pool water chemistry is managed professionally (normally by a pool shop), it is important that you specify the **pool type** as **Epoxy Paint** as opposed to fibreglass, marblesheen or concrete, as this is the surface exposed to the water. Faulty specification can lead to chemicals being maintained at incorrect levels, and may result in faster rates of degradation and shorter life expectancy of the **LUXAPOOL** coating. The four most important chemical levels that should be balanced for a **LUXAPOOL Epoxy** pool are Total Alkalinity (TA), pH, Calcium Hardness (or just Hardness), and Chlorine.

<b>Total alkalinity (TA):</b>	Adjust close to 180ppm, and maintain within the range 160-180 ppm.
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The TA balance is most critical to extending the life of a **LUXAPOOL Epoxy** coating, so it should be checked regularly, and maintained in this range all year round. TA levels lower than 140ppm are likely to lead to early degradation of the epoxy coating. Low TA may be indicated by white powdery deposits on the coating surface, or early pick up of colour on the feet of pool users. When using Cyanuric Acid stabiliser, take care not to exceed 55 ppm, as this will give a false reading of TA.

<b>pH:</b>	Adjust close to 7.6, and maintain within the range 7.4-7.8.
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<b>Calcium Hardness :</b>	Maintain within the narrowest possible range between 280–320 ppm.
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<b>Chlorine :</b>	Keep under 3ppm, ideally between 1-2ppm
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#### 4. Climatic Zones

All quoted water chemistry levels are based on extensive experience with **LUXAPOOL Epoxy** under Australian water and climatic conditions. By comparison to other countries, Australia experiences relatively high average temperatures, harsher UV, and pools which are filled all year long. As such, it is important to manage pool chemistry according to these levels throughout ALL OF THE YEAR. Even within Australia it should be noted that pool water in climatic zones that are hotter or prone to higher levels of UV is likely to require much more regular maintenance.

### USEFUL HINTS FOR MAINTAINING YOUR LUXAPOOL COATING

#### **CLEANING & MAINTENANCE:**

Epoxy coatings in both salt and chlorinated conditions work in a sacrificial manner. This means that the coating surface is slowly eroded by the chemicals to which it is exposed, until after many years it requires renewal. The erosion will most commonly present itself as "chalking" which is covered in more detail earlier in this guide. Both the chalk itself as well as soluble salts which have been deposited onto the pool surface can result in reduced life of the coating, due to the abrasive action of automatic pool cleaners on the paint surface.

To avoid this, it is strongly recommended that periodic maintenance of the pool be carried out to remove any chalking and deposited salts. An effective way to do this is by **VIGOROUSLY** brushing down the walls and floor areas of the pool using a stiff bristled broom or long handled scourer. After scrubbing back the surface, allow the residues to settle, and **GENTLY** vacuum to waste or coagulate/flocculate before filtration and back-wash. Then follow with 8 hours filtration. Finally dose the pool with Bi-carb Soda so as to bring the Total Alkalinity back to recommended levels.

This should be done monthly during summer, and every 6 - 8 weeks in cooler periods.

**NOTE (for Sand Filters):** The chalked product rubbed off as above is too fine to be trapped by a sand filter under normal operating conditions. This can be addressed in one of 2 ways:

- A. either first turn off the pump and allow this material to settle, then second, turn the pump back on and **GENTLY** vacuum TO WASTE  
or
- B. Flocculate fine material and coagulate before filtration, then back-wash. However, this option runs the risk of clogging the sand filter.

Following this procedure will assist in maintaining a smooth, glossy and hygienic (non-algae supporting) surface to the pool water, and will greatly enhance the life of the coating. Please note all epoxy coating will chalk under UV and what we can do is slow down/reduce the chalking by balancing the water chemistry, cleaning and maintaining the pool as above.

#### **VER1604**

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