

POOL RESURFACING AND CARE

LOOKING AFTER THE SURFACE OF YOUR NEW OR REPLASTERED POOL

With your new or re-plastered pool, it is imperative that you follow up with the proper cleaning and maintenance techniques to ensure the longevity of the surface and the ideal water chemistry.

Filling the Pool

Your new pool builder will advise you on when to fill your newly plastered pool. We recommend it is allowed to cure for at least 6hrs or overnight before starting to fill. If having a light acid wash to expose the sparkling colour, the acid wash should not occur before the following morning.

If you intend on using any water other than normal scheme water, make sure you mention this to your builder, as the water may require special chemical treatment. Bore water high in minerals may cause unsightly stains on the surface.

When filling the pool, attach a sock, pillowslip or similar material to the end of the hose in order to diffuse the stream of water. Without this protection you risk damaging the new pool plaster. Place the hose outlet in the deepest part of the pool. Then fill the pool without stopping, until the water reaches the recommended level.

Do not turn off the tap while the pool is being filled, as dust and oils on the water's surface may leave a mark on the pool plaster, which is difficult to remove.

Water Balance

Your pool builder or renovator will usually arrange the initial start-up of your pool, so please take advice from them on how to run the filter and other equipment. Once the system is running, it is important to test the water regularly and to keep a record of each reading.

The water in your pool contains various minerals and compounds. A correct, accurate balance is required to ensure sanitisers are effective, swimmers are safe and your equipment is protected. The four key variables are discussed below.

pH (the measure of alkalinity / acidity)

Total Alkalinity (TA)

Calcium Hardness

Total Dissolved Solids (TDS)

Each of these variables is dependent on the other so an accurate balanced water level can only be achieved by balancing all of the factors together. As the pH level changes, this can alter the alkalinity and vice versa. Don't panic if you can't achieve the exact recommended levels, particularly in the first week as pH will rise as the plaster cures. Aim to have the measurements within the suggested range.

Recommended chemical levels in a concrete pool are as follows:

Total Alkalinity	80 to 160 ppm
pH	7.2 to 7.6
Calcium Hardness	200 to 300 ppm
Chlorine level	1 to 2 ppm

Brushing the pool interior

With a newly plastered pool, the initial care is very important. Plaster dust is a result of a chemical reaction between the cement and water during the initial four-week curing period and occurs in all plastered pools. The pool walls and floor should be brushed every day for the first week and every two days for the next three weeks. This will remove and prevent plaster dust settling on the interior surfaces. If left undisturbed these deposits are very difficult to remove.

Thereafter, brushing the pool walls regularly (every week) will help keep the Rainbow Quartz finish in peak condition. No matter what the sales people tell you, your automatic cleaner probably won't get up the walls, steps and swim ledges to cover every inch of the pool – so give those spots a manual brushing as well.

When to add salt and start the salt chlorinator

We recommend running the system using chlorine only for the first four weeks. In week five, add the salt and switch on the salt-water chlorinator. There is no set rule as to when salt should be added (some plaster manufacturers say immediately and others say after three months) but we believe four weeks of curing time is enough to protect the pool plaster from any effects.

When adding the salt to your pool, make sure to have the pumps running, spread it all around and agitate with the pool brush until dissolved. Remember, lumps of salt left sitting on the plaster surface may cause stains.

General Care

Regularly Testing & Balancing

Get into the routine of testing and balancing your pool water on a regular basis, you will enjoy years of trouble-free ownership and swimming. This practice is important because when the water's acidity is unbalanced, it could damage the plaster finish either by directly attacking it or by depositing unwanted and hard-to-remove minerals on the surface.

Keep on Brushing

Nothing cleans pool walls better than a good old-fashioned brush down, especially in the hard to reach places. We suggest a quick brush down once a week in summer and maybe once a month in winter. Start at the steps and work your way down the walls, finish in the deepest part. The pump and filter should be running while you brush. Have a look under your pool blanket throughout winter – you may get a shock and it will be easier to fix if you discover a problem early.

Water Chemistry Explained

pH

pH is the relative measure of acids and basic ions in the water. pH is measured on a numbered scale from 0 – 14. The neutral point is determined as seven (pure water) – any less, then the water is acidic, any more, then the water is alkaline.

The pH scale is logarithmic. This means that a change in pH of just 1 unit is a change of 10 times in acidity or alkalinity. Now you can see that 'close enough' is not good enough when it comes to maintaining the correct pH level. If your pool returned a pH reading of 5, it is ten (10) times as acidic as a pool with a pH of 6 and one hundred (100) times as acidic as a pool with a pH reading of 7.

The ideal pH level for a swimming pool is slightly alkaline at 7.4. You should strive to maintain a pH level in the 7.2 – 7.6 range. The pH level in a newly plastered pool will tend to rise in the first four weeks so you should test regularly and add small amounts of hydrochloric acid (say 500ml) to

balance. If you need to add larger quantities of hydrochloric acid, try several small doses over a few hours and make sure to dilute first and spread it around the whole pool. If you simply tip the hydrochloric acid in at the steps for example, because it is heavier than water, it will go straight to the bottom and damage the plaster finish.

Warning: Do not use 'No-Fume' or Sulphuric acids to control pH in a concrete pool. Sulphates have been proven to attack and degrade concrete and cement materials including pool plaster and tile grout. Many pool shops in WA stock No-Fume sulphuric based acids which is safe for use in fiberglass pools, but they must not be used in your concrete pool. Only use liquid Hydrochloric acid to balance pH.

Alkalinity

Alkalinity is thought by many to be the most important variable in maintaining the correct water balance. Total Alkalinity (TA) measures all the alkaline chemicals in the water e.g. Bi-carbonates and carbonates. TA is expressed in parts per million (PPM) with a preferred range for pools to be between 80 and 160. The ideal level is 120.

If the TA level is in the ideal range, the pool environment is more stable and it will be easier to keep pH levels where you want them. Therefore, you should always check and adjust TA before adjusting the pH. A high TA can also contribute to scale forming on the surface and on equipment.

Calcium Hardness

Water was first described as 'hard' because it was hard to make soap 'lather up'. Hard water contains higher levels of calcium and magnesium.

Total Hardness is the sum of temporary and permanent hardness:

Temporary hardness – formed by bicarbonates of earth metals which can be filtered out after being heated

Permanent hardness – formed by alkaline salts including chlorides and sulphates; these cannot be filtered out.

The hardness of water is expressed as calcium carbonate PPM. The ideal range for your concrete pool is 200 – 300 PPM. In a newly plastered pool, the calcium hardness will increase in the first

month as the Rainbow Quartz cement render cures. During this curing period, we recommend brushing the walls and floor of the pool every day and vacuum the residue described as 'plaster dust'. Keep filters effective during this phase by backwashing or cleaning regularly.

Total Dissolved Solids

Total Dissolved Solids (TDS) originate from several sources including, some water supplies containing mineral salts such as creeks, dams or bores. Pool chemicals like chlorine can break down to form chlorides or salt. Then there is organic matter introduced to the pool like sweat, grass clippings, leaves, dust and pollen. Pools using salt-water chlorinators will have higher TDS readings, which is not usually a problem. If TDS reaches extreme levels, the solution is to replace some of the pool water with fresh water.

Never mix different chemicals together

Take care when using algaecides that contain copper. The copper stays in the pool and at some stage, if the level builds up too high, it will 'plate out' and deposit as a black stain over the entire pool surface.

Contact Rainbow Quartz to transform the look of your pool.