POSEIDON POOL PLASTER

Your Marbelite Guide

Mixing, application and pool care

For pool owners and their contractors

Includes the Technical Data Sheet · Version 2026.1

Supersedes all previous versions of the Poseidon MTD sheet.

Start here: your checklist on page 3 →

www.poseidonpoolplaster.co.za

060-849-3924 · sales@poseidonpoolplaster.co.za

Welcome to your new pool surface

Dear client,

Thank you for choosing Poseidon Pool Plaster. A new pool surface is an investment, and we want it to look beautiful for many years.

This guide covers everything you and your contractor need: how to prepare, mix and apply the marbelite, and how to look after the water once the pool is filled.

The first 28 days matter most. Your new marbelite is still curing, and how the water is looked after during this time decides how your pool will look for years to come. Please share this guide with your contractor before work begins. Because we supply the marbelite but do not apply it, we cannot guarantee the contractor's workmanship, which is why following this guide together makes such a difference.

We're here to help at every step. Send your water test results to **060-849-3924** and we'll tell you exactly which chemicals to add. If something doesn't look right, send us a photo as soon as you notice it. The earlier we see it, the easier it is to put right. We reply within 1 working day.

Keep a record as you go: photos before, during and after plastering; the date and weather on the day; the number of plasterers and bags used; and your weekly water test results from a pool shop. Test strips, or tests covering only pH, chlorine and alkalinity, don't give us enough to work with. If you ever need us to look into a problem, these records are what allow us to give you a proper answer.

Our terms and conditions are at the end of this guide. By receiving this guide, in hard or soft copy, you agree to them.

Enjoy your Paradise Pool!

How this guide is organised

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Your Renovation Checklist
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Your Renovation Checklist

Tick each step as you go. The page number shows where to find the detail.

1 Before plastering

Most problems start with the water going in. Testing first costs little and saves a lot.

- ☐ Have your source water fully tested at a pool shop, and send us the report. We'll tell you which chemicals to add. — Page 8
- ☐ Storing your old pool water in a bladder? Test it too. Untested stored water can damage new marbelite. — Page 8
- ☐ Plan to replace the filter sand as part of the renovation. — Page 8
- ☐ Give this guide to your contractor and check they'll measure water per bag and add nothing else to the mix. — Page 5
- ☐ Agree a plastering day between 10°C and 30°C, with no rain forecast. In summer, work starts early. — Page 4
- ☐ Buy all the bags for the job at once, from the same batch. — Page 4
- ☐ **Keep your invoice.** It records the batch numbers you bought, so we can trace your exact batch if you ever have a query. — Page 4
- ☐ Take photos of the pool before work starts.

2 Plastering day

Careful application gives you an even, smooth finish.

- ☐ Fill in the plastering-day record sheet with your contractor, and both sign it. Take photos. — Page 17
- ☐ Make sure the pool is lightly misted about 2 hours after plastering, then every hour. — Page 5
- ☐ Keep people and pets out of the pool.

3 Filling day (at least 24 hours later)

The water you fill with is the water your new surface lives in.

- ☐ Fill only with tested water. No untested borehole or bladder water. — Page 8
- ☐ New filter sand in? If not, do a full backwash and rinse before switching to filter. — Page 8
- ☐ Salt chlorinator switched off or bypassed. It stays off for the first 30 days. — Page 9
- ☐ Test the water within 24 hours of filling and send us the report. Complete the filling section of the record sheet. — Page 17

4 The first 28 days

Your marbelite is still curing. The care you give it now shows for years.

- ☐ Brush daily with a soft nylon brush. — Page 9
- ☐ Test pH every 1–2 days for 2 weeks, then twice a week. Keep it between 7.4 and 7.6. — Page 9
- ☐ pH above 7.6? Backwash and top up. At 8.4 or higher, add diluted acid through the weir, or call us. — Page 9
- ☐ Add chemicals only through the weir, one at a time, 12 hours apart. Never straight into the pool. — Page 9
- ☐ No floater, no automatic cleaner and no salt yet. Use a pool vacuum, but not an 8-wheel vacuum. — Page 9

5 Every week after that

Balanced water keeps the colour and finish looking new.

- ☐ Do a full water test at a pool shop and keep the report. — Page 10
- ☐ Add chlorine through the weir. Avoid floaters and never use a solid cover. — Page 9
- ☐ Keep the pump running all year and keep to your sand change schedule. — Page 10
- ☐ Write each result in your weekly water log. — Page 18

How we help

Not sure about something? Send your water test or photos to **060-849-3924** or sales@poseidonpoolplaster.co.za. We'd much rather answer a question early than fix a problem later.

We reply within 1 working day (Monday to Friday 07:00–16:00, Saturday 08:00–12:00). Messages sent after hours, on Sundays or on public holidays are answered on the next working day.

While you wait: keep the pump running, keep brushing, and don't add any chemicals or acid until we've seen your results. Water left as it is for a day or two does far less harm than the wrong chemical added in a hurry.

PART A

For your contractor

Technical data, surface preparation, mixing and application.

Please read this part in full before work begins. Following it is what makes the warranty on our product apply.

Technical data at a glance

Product	Swimming pool plaster / marbelite, chemically engineered to provide a smooth finish
Cement type	Class 1 52.5 white Portland cement
Coverage	2 sqm per 40kg bag at a thickness of 6–8mm
Colours available	72 colours. The colour sample is a guide: the finished shade can vary with application, curing and water. Buy all bags from the same batch.
Batch numbers	Printed on each bag and recorded on your invoice. We keep a sample of every batch for 6 months, so any product query can be tested against the original batch. Record the numbers on the plastering-day record sheet too.
Working time	Use each mixed batch within 30 minutes
Setting time	Starts setting after 45 minutes; full set within 90–120 minutes in winter. Sets faster in summer.
Curing time	28 days to achieve full strength (MPa), provided specifications are followed
Applicators	1 qualified pool plasterer per 10–15 sqm of pool surface
Summer application	Start mixing before 8am; plasterers out of the pool by 11am. Mist every hour after application.
Winter application	Start mixing after 8am, only once the temperature is above 10°C
Suitable surfaces	Gunite, hand-packed and concrete surfaces. Cannot be applied over prefabricated or fibreglass pools.
Weather conditions	Beware of frost in winter and rain in summer. A minimum of 8–10 hours without rain is needed after application.
Filling	Minimum 24 hours after application; longer in cold weather, until the surface is hard
Care after application	Light mist about 2 hours after application, then every hour, to prevent premature drying and surface cracks. Seal any hairline cracks with a clean sponge.
Safety	General respiratory PPE applies. Do not inhale dust.
Packaging	Plastic bag, 540 x 910mm, 200 micron
Storage and shelf life	Keep out of direct sunlight. 6 months if stored away from direct sunlight.

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How many bags?

One 40kg bag covers 2 sqm at 6–8mm. Work out the pool's surface area (floor plus walls), then divide by 2. **Surface area** ≈ (length × width) + (2 × (length + width) × average depth). **Example:** a 8m × 4m pool, 1.4m deep on average: 32 + (2 × 12 × 1.4) = 65.6 sqm, so about **33 bags**.

Order enough to cover the whole pool. Running short and stretching the mix with extra water is a leading cause of cracks and patchy colour.

Safety: cement and acid

Wet cement is strongly alkaline and can burn skin and eyes. Wear waterproof gloves, long sleeves, boots and eye protection. Wear a dust mask when mixing; don't breathe in the dust.

Hydrochloric acid (for acid washing) burns skin and eyes and gives off fumes. Wear acid-resistant gloves, eye protection and a mask, and work with good airflow. Always add acid to water, never water to acid.

If it splashes: rinse skin or eyes with plenty of clean water for at least 15 minutes and get medical help. Follow the safety data sheet (SDS) for each product.

Surface preparation: new pools

- The pool shell must be cured and structurally sound.
- Where the shell was rounded off and plastered, roughen these areas with river sand (not plaster sand) for maximum adhesion.
- No debris or foreign substances may be present in the pool, other than the plaster supplied and the additives mixed in on the day of application.
- Saturate the concrete shell properly the day before, then apply the slurry/key coat as late as possible that same day, before final application.

Surface preparation: existing pools

- We recommend removing the existing pool plaster, although this is not always required. Complete removal is required if the existing plaster is brittle, has hollow spots or is delaminating. Also inspect for damp: if present, a damp-proofing application is required before the slurry coat.
- Once the old marbelite is confirmed sound, chip the surface: chips a minimum of 50mm apart and 3–5mm deep. If black algae, rust or stains are present, remove everything in the affected area and treat the cause. Algae must be eradicated completely, otherwise it will return.
- Acid wash the surface with hydrochloric acid diluted 1 part acid to 5 parts water, to remove dust and neutralise remaining alkalinity in the old plaster.
- Rinse thoroughly and continuously until no debris or acid remains. Any acid left behind will cause streaking in the new marbelite.
- Saturate the pool shell with water before applying the slurry coat. Once the slurry is on, water can no longer penetrate the shell.
- Apply a slurry of Marbeltite bonding liquid mixed with Poseidon Pool Plaster within 24 hours before plastering.

Slurry / key coat formula

Dilute 5L Marbeltite concentrate with 15L water. Mix Slush (available from our office) or ½ bag of marbelite into the diluted liquid until runny, and apply to the entire pool surface within 24 hours before marbelite application. Keep the remaining diluted Marbeltite for the mix on the day of application.

Mixing and application

Always measure the water quantity per bag. The numbers that matter:

6L	8L	10–30°C	24 hrs
start: 5L water + 1L diluted Marbeltite per 40kg bag	maximum liquid per bag, never exceeded	only plaster in this temperature range	minimum before filling, longer in cold weather

- Start with **6L liquid per 40kg bag**: 5L water plus 1L diluted Marbeltite (1L of diluted bonding covers 1 bag). Only increase gradually if the mix is too stiff to work. **Never exceed 8L liquid per bag.**

- **Never use a hosepipe to ‘measure’ water.**
- Mix the Marbeltite bonding liquid into the measured water first, then add it to the dry mix. **Example (20 bags at the starting ratio of 6L per bag):** 20L diluted Marbeltite + 100L water = 120L total liquid. Even at the 8L maximum, never exceed 160L for 20 bags.
- The mix should look like stiff pap, oatmeal or peanut butter and should stick to the wall as it is applied. A runny mix means too much water.
- Do not add accelerators such as calcium chloride (calcium flakes) to the mix. See ‘Application faults’ below.
- Use a clean, rounded steel trowel.
- Plaster the walls first, starting at the deep end and working towards the entry point of the pool.
- Use one skilled plasterer for every 10–15 sqm of pool surface.
- Once trowelling is complete and the surface has firmed (about 2 hours after application), apply a light mist over the entire pool, then repeat every hour. This prevents premature drying, which causes hairline cracks.
- Allow a **minimum of 24 hours** before filling. In cold weather wait longer, until the surface is hard. Marbelite does not need to ‘dry out’; cement cures by reacting with water. It must simply be hard enough not to be damaged by the incoming water.
- Do not walk inside the pool after it has been plastered, and keep dogs away from the pool area.

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Getting an even colour

Mottling depends mostly on the plasterer and the mix. Keep the water per bag measured and consistent, never wet the surface while trowelling, and keep trowel pressure and timing the same across the whole pool. Finish trowelling before the plaster starts to set; hard trowelling too late leaves dark patches.

Application faults and their causes

Most surface failures trace back to one of these. Each one is avoidable.

Fault	Common causes
Cracks, popping, delamination	• Too much water in the mix • Too much sun on the surface without misting: premature drying • Filling too early (before 24 hours, or before the surface has hardened in cold weather) • Over-floating, which damages the bond and makes the surface prone to cracking • Weak areas in the old marbelite not removed before the new application • Foot traffic in the pool during or after application • Incorrect preparation, such as too little surface chipping • Too little marbelite for the surface, with the shortfall made up with extra water • Applying marbelite too thickly, which causes sagging • Freezing temperatures: water in the marbelite expands and causes popping
Mottling and patchy colour	• **Mix too wet.** Extra water leaves tiny pores as it leaves the plaster, and it rises unevenly, so areas cure to different shades. The surface is also weaker and more porous, so it is less able to resist unbalanced water later. • **Water added to the surface while trowelling.** This upsets the water-to-cement balance at the surface, causing streaks, spots and patchy colour. • **Trowelling too hard or too late,** once the plaster has started to set. This causes dark, greyish mottled patches. • **Inconsistent trowelling.** Different pressure or timing from one plasterer, or one area, to the next leaves areas that cure to a different shade. • **Calcium chloride (calcium flakes),** even in small amounts. • These causes add up: a wet mix, late hard trowelling and calcium flakes together give the worst results.

Fault	Common causes
Unskilled labour	• Not using enough marbelite to cover the full surface area of the pool • Not measuring water per bag. If the mix doesn't look like stiff pap, oatmeal or peanut butter, there is too much water in it. • Uneven, inconsistent floating • Burned marbelite: black streaks appear over the surface • White streaks: water sprinkled on during trowelling (plasterers dip trowels in a bucket instead of wiping them with a sponge)
Application times	• Plastering below 10°C. Marbelite cures more slowly in winter: don't fill after the standard 24 hours if the surface isn't hard yet. • Plastering too late in the day in summer causes premature drying and an unworkable mix. • In summer, plasterers must be out of the pool by 11am.
Adding accelerators	• Calcium chloride (calcium flakes) does speed up setting, but causes discolouration, mottling and dark patches, especially in coloured marbelite. • Our marbelite uses Class 1 52.5 white Portland cement, which already gains strength early. No accelerator is needed. • Do not add calcium flakes to our marbelite at all, including white marbelite. They may be added to the pool water after filling if tests show calcium is low.

PART B

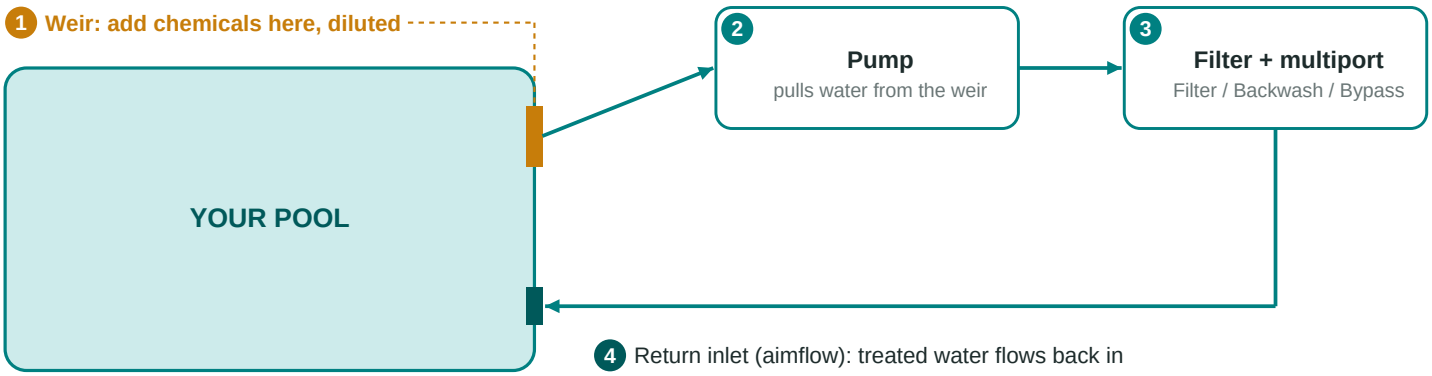
For you, the pool owner

Filling, the first 28 days, weekly care and water chemistry.

Your contractor finishes the surface; the water finishes the job. What goes into your pool in the first weeks decides how it looks for years.

Know your pool's circulation

You'll see these four parts mentioned throughout this guide. Water is drawn in at the weir, pumped through the filter, and returned to the pool.



Before you fill

Four checks protect your new surface before a drop of water goes in.

Test your source water first

Have the water you'll fill with fully tested at a pool shop (for example Builders Warehouse, Chamberlains or Pool Warehouse): pH, total alkalinity, chlorine, phosphates, metals (copper and iron), stabiliser (cyanuric acid) and calcium hardness.
Send the report to **060-849-3924** and we'll advise which chemicals to add.

Water stored in a pool bladder

Storing your old pool water in a bladder during a renovation is not recommended unless that water is tested and balanced first. Old pool water has unknown chemical levels (pH, alkalinity, calcium, stabiliser, metals) that can damage newly plastered marbelite immediately. Test the stored water like any other source water and send us the report before refilling.

Old filter sand

Change the filter sand as part of the renovation. Old sand holds residue from the old pool (chemicals, scale, metals, algae and dirt) and releases it back into the newly plastered pool, causing high or unexplained chemical readings. If the sand is not changed, do a full backwash and rinse before switching to filter, and test the water within 24 hours of filling.

Borehole water
Do not fill your pool with borehole water without precautions. It often carries metals that stain marbelite. Please consult us first. If the water contains metals, add a metal and stain remover once the pool is filled or, in some cases, while it is filling.

The first 28 days

New marbelite releases lime (calcium hydroxide) into the water as it cures. This pushes pH and alkalinity **up** during the first weeks, and this is when most new-pool staining and scaling starts.

Daily	7.4–7.6	1–2 days	30 days
brush with a soft nylon brush	keep pH in this range	between pH tests for the first 2 weeks	salt chlorinator off or bypassed

- Test pH every 1–2 days for the first 2 weeks, then twice a week until day 28.
- Keep pH between 7.4 and 7.6. When it rises above 7.6, backwash and top up with fresh source water. Expect to backwash more often than usual during this period.
- If pH reaches 8.4 or higher, add diluted hydrochloric acid through the weir, as described below.
- Brush daily to remove plaster dust. Don’t brush vigorously.
- Automatic pool cleaners may only be used after 3 weeks. Until then, use a pool vacuum, but not an 8-wheel vacuum, which leaves lines on the marbelite.
- Do not add calcium or stabiliser during the first weeks unless a full water test shows it is needed.
- Salt chlorinators must be switched off or bypassed, and no salt added, for the first 30 days while the marbelite cures. Salt in a newly plastered pool erodes the marbelite and roughens the surface. After 30 days, the salt chlorinator can be switched on.

Adding chemicals safely

Safety: handling pool chemicals
Wear rubber gloves and eye protection when handling acid or chlorine. Always add acid to water, never water to acid.
Never mix chlorine and acid, or pour them in at the same time: together they release toxic chlorine gas. Add chemicals one at a time.
Store chemicals in their original containers, closed, in a cool, dry place, away from each other and out of reach of children and pets.
If it splashes: rinse skin or eyes with plenty of clean water for at least 15 minutes and get medical help. Read the label before use.

Never add chemicals directly into the pool
Always add chemicals through the weir. Undissolved chlorine granules settle on the marbelite and bleach it. Add chemicals one at a time: dilute, add through the weir on bypass, and run for 12 hours before adding the next.

Lowering pH: backwash first
Backwashing removes pool water, which is replaced with fresh source water and brings pH down.
Only if pH reaches **8.4 or higher**, add hydrochloric acid diluted in a bucket of water (always add acid to water, never water to acid), slowly through the weir. Never pour acid directly into the pool.
Acid washing is not routine maintenance. It is a treatment for scaling only, on fully cured marbelite (after 28 days). Contact us before acid washing so we can advise.

> **!** **Avoid floaters**
> Floaters drift to one side of the pool when the pump is off and keep dispensing chlorine, which leaves white marks. They also lower pH, because the tablets are acidic (pH of about 3), and they keep adding stabiliser. If a floater must be used, introduce it only after 21 days, tie it to the automatic cleaner hose in the middle of the pool, and test pH more often.

- Recommended chemicals: granular chlorine, alkalinity booster, algaecide (some contain metals; do not use if metal content is high), and alum powder (to lower phosphates).
- Run treatments such as algaecides and clarifiers through the weir with the multiport on bypass. Treatments can shift pH: granular chlorine raises it, while floater tablets and acid lower it. Test pH after every treatment.
- Weekly chlorine can be added through the weir on the filter setting, together with alkalinity booster if the test shows alkalinity is low. The chemicals pass through the filter and return already diluted; you'll see a white cloud entering the pool at the return inlet.

Every week

- Test the water weekly at a pool shop for pH, total alkalinity, calcium hardness, phosphates, metals (copper and iron), chlorine and stabiliser. Keep the reports.
- Keep the pump running all year round. Do not switch the system off in winter.
- Keep the water level at the middle of the weir.
- Keep to the sand change schedule. Dirty sand circulates dirty water and upsets the chemical balance.
- Pools in direct sunlight all year should be protected with a solar blanket.

> **!** **Never use a solid cover**
> Chemicals cannot vent under a solid cover, which causes bleaching and scaling. Use a solar blanket instead.

Your water readings explained

Use this table with your weekly water test. Readings outside these ranges are the most common cause of marks, fading and roughness.

Reading	Target	If too low	If too high
pH	**7.4 – 7.6**	Etched and stained marbelite, chlorine loss, eye irritation, corroded fittings, alkalinity destroyed	Scale, cloudy water, chlorine far less effective, eye irritation
Total alkalinity	**80 – 120 ppm**	pH swings easily; water becomes aggressive and etches	pH creeps up and is hard to bring down; scaling
Calcium hardness	**220 – 400 ppm**	Water draws calcium out of the marbelite: etching, white blotches, rough surface	Scaling and cloudy water
Stabiliser (cyanuric acid)	**30 – 50 ppm**	Sun burns off chlorine much faster	Chlorine less effective. Partly drain and refill.
Free chlorine	**1 – 3 ppm**	Algae and cloudy water; bacteria not controlled	Bleaching risk; eye and skin irritation
Phosphates	**below 100 ppb (0.1 ppm)**	—	Feeds algae; chlorine gets used up faster. Treat with alum powder.

Reading	Target	If too low	If too high
Combined chlorine	**below 0.2 ppm**	—	Chlorine is tied up and working poorly; a chlorine smell. A shock dose is needed (see the order of steps).
Copper	**below 0.2 ppm**	—	Blue-green water and/or coloured stains
Iron	**below 0.3 ppm**	—	Red-brown water and/or coloured stains
TDS	**less than 1,500 ppm above your source water**	—	Dull water; chemicals less effective. Partly drain and refill. (Salt pools excluded.)
LSI	**–0.30 to +0.30 (ideal 0.00)**	Water is aggressive and etches the marbelite	Water is scaling and deposits a white crust

How to adjust

- **pH:** raise it with soda ash. If pH is below 7.0, fix it before adding any other chemical: nothing works properly at that level. Lower it by backwashing first; use diluted acid through the weir only if pH reaches 8.4 or higher.
- **Alkalinity:** dosing depends on pool volume. As a guide, about **170g alkalinity booster (sodium bicarbonate) per 10,000L** raises alkalinity by 10 ppm. Example: a 50,000L pool needs about 850g to raise it by 10 ppm. Always check the product label and re-test before adding more.
- **Calcium:** calcium flakes may be added to the pool water (never the plaster mix) if tests show calcium hardness is low. Towards the top of the range, watch pH and alkalinity closely to avoid scaling. Hard water is usually less aggressive towards marbelite than soft water.
- **Not sure?** Send us your test results. We'll tell you exactly what to add.

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Know your pool's volume

Chemical doses depend on how many litres your pool holds.
Rectangular pool: length × width × average depth (all in metres) × 1,000 = litres. **Example:** 8m × 4m × 1.4m × 1,000 = 44,800 litres.
Kidney, oval or freeform pool: work it out the same way using the longest length and the widest width, then multiply by 0.8 for a rough figure.
Average depth = (shallow end + deep end) ÷ 2.

How it all fits together

pH, alkalinity, calcium hardness, temperature and TDS don't act alone. Together they decide whether the water is **aggressive** (dissolves marbelite) or **scaling** (deposits on it). The Langelier Saturation Index (LSI) combines them into one number; calculate it with any online LSI calculator. Raising pH, alkalinity, calcium or temperature pushes the LSI up; lowering them pushes it down. pH has the biggest effect, so correct pH first.

Temperature matters too. Warm summer water tends to form scale; cold winter water is more aggressive and more likely to etch. The same pool can be balanced in winter and scaling in summer, so check balance as the seasons change.

Reading your water test: what to fix first

Every reading affects the others. Treat them in the wrong order and the chemicals cancel each other out, or worse, stain the marbelite. Work through these steps from the top, one at a time, and retest before moving on.

! pH below 7.0? Stop and fix pH first

At any pH reading below 7.0, nothing works properly. Chlorine is used up within hours, treatments don't do their job, and the water attacks the marbelite and dissolves metal from fittings.

Raise pH with soda ash before adding anything else, diluted, through the weir, in small doses, retesting between doses. Once pH is back above 7.2, continue with the steps below.

If the test also shows copper or iron, send it to us before treating: raising pH with metals in the water can cause stains.

1
Does the test make sense?
Chlorine above 10 ppm can upset the test itself and give false pH and alkalinity readings. If numbers contradict each other, retest first.

2
Drain first, if needed
Stabiliser above 50, calcium far above 400 or very high phosphates only come down by partly draining and refilling. Do this first: it changes every other reading.

3
Metals
Copper or iron over the limit? Add metal and stain remover before chlorine, shock or soda ash. Chlorine and higher pH turn dissolved metal into stains.

4
Alkalinity, then pH
Alkalinity anchors pH. Low pH: soda ash (below 7.0, do this before everything, see above). High pH: backwash and top up; diluted acid only at 8.4 or higher.

5
Calcium
Only once pH and alkalinity are in range. Calcium added to high-pH water clouds the pool and forms scale.

6
Stabiliser
Bring it into 30–50 ppm if low. Without it, the sun burns off chlorine within hours.

7
Phosphates
Treat with phosphate remover, then backwash. Phosphates feed algae, which uses up your chlorine.

8
Chlorine last
Only when pH is 7.4–7.6 and metals are under control. Shock only at this stage.

Between steps: one chemical at a time, diluted, through the weir, with the pump running. Wait 12 hours and retest before the next one.

How the readings affect each other

When…	…this happens
pH too high	Chlorine works at less than half strength (at pH 8.0 versus 7.5). Calcium drops out as scale. Dissolved metals drop out as stains.
pH too low	Below 7.0, no chemical works properly. Water etches the marbelite. It dissolves copper and iron from fittings and heat pumps, so metal readings rise. Chlorine burns off faster.
Alkalinity too high	pH keeps creeping back up, however often you correct it. Fix alkalinity, or pH won't hold.
Alkalinity too low	pH swings wildly. A small dose of acid can crash it and etch the surface.
Calcium too low	Water is calcium-hungry and draws calcium out of the marbelite: etching, white blotches, a rough surface.
Calcium too high	Combined with high pH or alkalinity, it forms scale and cloudy water.
Metals present	Chlorine, shock or a rise in pH oxidises them and they stain the surface: blue-green or black from copper, brown from iron.
Stabiliser too low	The sun destroys chlorine, so readings stay near zero however much you add.
Stabiliser too high	Chlorine becomes sluggish and algae can grow even with a chlorine reading.
Phosphates high	Algae food. Chlorine gets used up and readings drop to near zero.
Chlorine at zero	Algae, including black spot, takes hold quickly, especially in a new, porous surface.

When…	…this happens
Combined chlorine high	Chlorine is tied up with waste and working poorly. A shock dose is needed, but only after steps 1–7.

Pool shop printouts: what to watch for

Pool shop ranges are written for all pool types. For marbelite, use the targets in this guide (for example phosphates below 100 ppb, stabiliser 30–50 ppm).

Check the **pool volume** on the printout. Every dose is calculated from it; a wrong volume means a wrong dose.

Printouts often say to add chemicals ‘around the sides’ or ‘into the deep end’. On marbelite, always add them diluted through the weir instead.

Printouts list treatments, not always in a safe order. Use the steps above to decide what goes in first.

Real tests, explained

These are real pool shop results we have received (names removed). Each shows how to read a test as a whole, not one line at a time.

Example 1: high alkalinity holding pH up, with copper present

Reading	Result	Target	
pH	**8.6**	7.4–7.6	HIGH
Total alkalinity	**147**	80–120	HIGH
Calcium hardness	**296**	220–400	OK
Stabiliser	**71**	30–50	HIGH
Free chlorine	**2.52**	1–3	OK
Combined chlorine	**0.38**	below 0.2	HIGH
Copper	**0.30**	below 0.2	HIGH
Iron	**0.10**	below 0.3	OK
Phosphates (ppb)	**2,279**	below 100	VERY HIGH

What’s going on

The chlorine reading looks fine, but at pH 8.6 it is working at a fraction of its strength. High alkalinity is what keeps pushing pH up. Copper is over the limit, so shocking now or raising pH would stain. Stabiliser and phosphates are both too high.

Fix it in this order

1. Metal and stain remover first.
2. Partly drain and refill. This brings stabiliser, alkalinity and phosphates down together.
3. Retest. Bring alkalinity and pH down: backwash and top up; diluted acid through the weir only if pH is still 8.4 or higher.
4. Phosphate remover, then backwash.
5. Chlorine last, once pH is 7.4–7.6.

Example 2: a test that doesn’t add up

Reading	Result	Target	
pH	**8.3**	7.4–7.6	CHECK
Total alkalinity	**0**	80–120	CHECK
Calcium hardness	**160**	220–400	LOW
Stabiliser	**5**	30–50	VERY LOW
Free chlorine	**19.08**	1–3	VERY HIGH
Copper	**0.20**	below 0.2	AT LIMIT
Phosphates (ppb)	**4,498**	below 100	VERY HIGH
Salt	**2,569**	—	—

What’s going on

Alkalinity of 0 with a pH of 8.3 isn’t realistic. Chlorine this high can upset the test and give false pH and alkalinity readings. The salt reading suggests a salt chlorinator, so check its setting. **Don’t treat anything from this test.**

Fix it in this order

1. Turn the salt chlorinator down or off and add no chemicals.
2. Retest once chlorine is below 5 ppm.
3. Expect to need, in this order: metal remover, then pH and alkalinity, calcium, stabiliser and phosphate remover.
4. Send us the new test before treating.

Example 3: scale-forming water with no chlorine protection

Reading	Result	Target	
pH	**8.5**	7.4–7.6	HIGH
Total alkalinity	**93**	80–120	OK
Calcium hardness	**558**	220–400	HIGH
Stabiliser	**5**	30–50	VERY LOW
Free chlorine	**0.04**	1–3	VERY LOW
Copper	**0.10**	below 0.2	OK
Iron	**0.00**	below 0.3	OK
Phosphates (ppb)	**261**	below 100	HIGH

What's going on

Calcium of 558 with pH 8.5 means the water is laying down scale: the white crust risk. Chlorine is almost zero because stabiliser is only 5, so the sun burns it off. The printout suggested chlorine and stabiliser first; pH has to come first.

Fix it in this order

1. Bring pH down: backwash and top up; at 8.4 or higher, diluted acid through the weir.
2. Calcium only comes down by partly draining and refilling. Test the source water first: if it is also hard, this won't help much.
3. Stabiliser up to 30–50 ppm.
4. Phosphate remover, then backwash.
5. Chlorine last.

Example 4: looks balanced, but will etch new marbelite

Reading	Result	Target	
pH	**7.5**	7.4–7.6	OK
Total alkalinity	**84**	80–120	OK
Calcium hardness	**46**	220–400	VERY LOW
Stabiliser	**5**	30–50	VERY LOW
Free chlorine	**0.12**	1–3	LOW
Copper	**0.0**	below 0.2	OK
Iron	**0.1**	below 0.3	OK
Phosphates (ppb)	**0**	below 100	OK

What's going on

pH and alkalinity look perfect, so this water seems fine. It isn't: calcium of 46 is very low. This water is calcium-hungry and will draw calcium out of new marbelite, causing etching and white blotches. This is exactly why source water must be tested before filling.

Fix it in this order

1. Raise calcium to at least 220 ppm with calcium flakes, diluted, through the weir.
2. Check pH again: adding calcium can nudge it.
3. Stabiliser up to 30–50 ppm.
4. Chlorine last.

Words used in this guide

Weir	The opening in the pool wall, usually with a basket, where water is drawn into the pump. Chemicals are added here.
Multiport valve	The handle on top of the filter with settings such as Filter, Backwash, Rinse and Bypass.
Backwash	A multiport setting that flushes dirt out of the filter sand and sends some pool water to waste.
Bypass	A multiport setting that circulates water without passing it through the filter sand.
Return inlet	The opening where filtered water flows back into the pool (often called the aimflow).
ppm	Parts per million, the unit used on water tests. It is the same as mg/l.
Stabiliser	Cyanuric acid. Protects chlorine from the sun.
LSI	One number that shows whether water will etch marbelite or leave scale. Ideal: close to 0.
Floater	A floating dispenser for chlorine tablets. Not recommended on marbelite.
Curing	The 28 days in which marbelite gains its full strength by reacting with water.
Etching	Damage where unbalanced water dissolves the marbelite surface, leaving it rough or blotchy.
Scaling	A white, crusty layer of calcium deposited on the surface by water out of balance.
Mottling	Variation in shade across the surface. Soft, even variation is a natural part of marbelite.
Marbeltite	Our bonding liquid, used in the slurry coat and the marbelite mix.
Slurry / key coat	A thin bonding coat applied to the shell before the marbelite.

What’s normal, and what isn’t

Marbelite is a natural, hand-applied cement finish, so some variation is part of its character. These photos are from real pools.

NORMAL Soft, cloud-like variation in shade, spread evenly over the whole pool.

NORMAL The same soft variation in a darker colour, where it naturally shows more.

NOT NORMAL Harsh white patches and swirls. Usually a wet mix, water added during trowelling, or uneven trowelling.

NOT NORMAL White streaks that follow the trowel strokes: water sprinkled on while trowelling.

NOT NORMAL White blotches spreading over the surface: water out of balance, causing etching or scaling.

NOT NORMAL Brown spots and stains: metals in the water (often borehole) or leaves left lying in the pool.

- **Plaster dust:** fine dust in the first 2–3 weeks that brushes off is normal. Keep brushing daily.
- **Colour:** coloured marbelite softens slightly as it cures, settling evenly a shade lighter than the wet sample. Patchy or sudden fading is not normal; it usually points to a floater, chemicals added directly, acid, early salt or unbalanced water.
- **Water-related marks** come from: too little calcium (etching, white blotches); too much calcium (scaling, cloudy water, a white crust); metals such as borehole water (stains); pH not kept in check (discolouring, etching); low alkalinity (etching); high alkalinity (scaling); untested bladder water; and old filter sand (high or unexplained readings).
- **Seen something you’re unsure about?** Send us a photo. The earlier we see it, the easier it is to put right.

Plastering-day record sheet

Fill this in together on the day and both sign it. Keep it with your weekly water log. If you ever need us to look into a problem, this is the first thing we'll ask for.

The job			
Pool owner		**Phone**	
Address			
Contractor		**Phone**	
Pool size	____ m × ____ m, average depth ____ m	**Surface area**	_____ sqm

Plastering day			
Date		**Start / finish**	____ : ____ to ____ : ____
Weather	sunny / cloudy / windy / rain	**Temperature**	_____ °C
Colour		**No. of bags**	
Batch numbers			
Water per bag	_____ L water + _____ L diluted Marbeltite	**No. of plasterers**	
Anything else added to the mix?	No / Yes: _____		
Misting	First mist at ____ : ____, then every hour until ____ : ____		
Photos taken	before / during / after		

Filling day			
Date / time filled		**Hours after plastering**	
Water source	municipal / borehole / bladder / other	**Source water tested?**	Yes / No
Filter sand changed?	Yes / No	**Salt chlorinator off?**	Yes / No / None
First water test date		**Report sent to us?**	Yes / No

Contractor signature	_____	**Pool owner signature**	_____
Name and date	_____	Name and date	_____

Weekly water log

Test at a pool shop every week and write the results here. For the first 2 weeks, also check pH every 1–2 days. Keep the shop's printed reports too.

Date	pH	Total alk.	Calcium	Stabiliser	Free chlorine	Phos-phates	Copper / iron	Chemicals added
Target	**7.4–7.6**	**80–120**	**220–400**	**30–50**	**1–3**	**< 100 ppb**	**< 0.2 / < 0.3**	

All readings in ppm unless shown otherwise. Readings outside the target? Send us a photo of your test report on **060-849-3924**.

Terms and conditions

1. Product Quality and Warranty

1.1. The Company agrees that all plaster mixes supplied meet the industry standards for pool construction and repair at the time of sale.

1.2. The Company provides a limited warranty on the quality and durability of its products for a period of 6 months from the date of purchase, provided that the products are used and applied in accordance with the Company's guidelines.

1.3. The warranty is void if the products are improperly applied, exposed to abnormal environmental conditions, or used in conjunction with non-approved materials or methods.

1.4. The Company is not liable for colour variation, shading, or spotting that may occur due to improper water balance, application, or curing processes beyond the Company's control.

2. Limitation of Liability

2.1. The Company's liability for any defect or non-performance of the plaster mixes is limited solely to the replacement of defective products, or, at the Company's discretion, a refund of the purchase price.

2.2. The Company is not responsible for any incidental, indirect, or consequential damages arising from the use of its products, including but not limited to the costs of pool repairs, loss of use, or damage to third-party property.

2.3. The Company will not be held responsible for damages or defects caused by external factors such as poor workmanship, improper pool design or construction, inadequate water chemistry, weather conditions, or general wear and tear.

3. Application Guidelines

3.1. The customer acknowledges that the successful application and curing of the plaster mix are dependent on following the Company's provided instructions and industry best practices.

3.2. The Company recommends that the plaster mix be applied only by qualified and experienced professionals. The Company will not be liable for any damages or defects arising from improper application or misuse of its products.

4. Customer Responsibilities

4.1. The customer is responsible for ensuring that all pool surfaces are adequately prepared, clean, and free of debris before application.

4.2. The customer understands and accepts that:

A. Source water MUST be tested before filling the pool.

B. Borehole water may contain metals and minerals that can stain or discolour the surface.

C. Incorrect pH, alkalinity, calcium hardness, stabilizer, chlorine, metals, phosphates, or TDS levels can damage or discolour marbelite.

D. Water must be professionally tested and balanced before and after filling.

E. Weekly testing and chemical balancing are required to maintain the pool surface.

4.3. The customer acknowledges that failure to maintain proper water chemistry may result in discolouration, scaling, etching, staining, or surface damage.

4.4. The customer understands that ongoing maintenance is the responsibility of the pool owner or appointed maintenance company and acknowledges that Poseidon Pool Plaster cannot be held responsible for damage caused by:

A. Incorrect chemical dosing

B. Adding chemicals directly into the pool

C. Use of floaters

D. Failure to maintain filtration and equipment

E. Failure to maintain chemical levels

F. Failure to test water regularly

G. Use of improper cleaning equipment

H. Neglect or misuse of the pool

I. Use of Solid Pool Covers

Thank you for choosing Poseidon Pool Plaster. Enjoy your Paradise Pool!