

Pool Care Guide

Based on a pool water volume of
approximately 15,000 gallons
or 68,000 litres

Introduction

You have just had a Polar Pools swimming pool built and now need to know how to look after your pool so that the water is always clear, clean, safe and ready for swimming.

Whilst this guide is published in good faith and the information is believed to be correct, it is given without warranty or engagement and no licence or immunity under any patents is granted or implied.

Where chemical quantities or levels are quoted, the terms milligrammes/ litre (mg/l) and parts per million (ppm) are effectively the same and interchangeable.

The Need for Pool Care Chemicals

In order to ensure clean, sparkling, safe and balanced pool water, it is essential that correct filtration and circulation is achieved and that proper chemical treatment is carried out. Chemical treatment is necessary to counteract bacteria, algae, body wastes, etc., which can cause discomfort to or infection in the pool user. In addition, chemical treatment is required to prevent damage to the pool equipment and fittings through corrosion, staining and scale formation.

Individual pool water conditions vary considerably and although the basic method of treatment will be the same for the majority of pools, the chemical dosage rates will depend on the pool size and other variable factors such as temperature, rainfall and atmospheric pollution. The number of bathers using the pool will also influence considerably the treatment programme as will the introduction of impurities such as perspiration, urine, grease, hair, sun tan oils, cosmetics, etc., together with bacterial and other micro-organisms introduced by bathers or birds and animals.

Water Sanitisation and Balancing

SANITISATION

Sanitisation, or disinfection, is the process of killing or removing as many unwanted micro-organisms as rapidly as possible to minimise risk of infection.

Although your pool water may look crystal clear, if left untreated it will become a breeding ground for algae and bacteria. To help combat this situation a sanitisation regime needs to be established.

Chemical levels should be checked on a weekly basis ensuring that test tablets used are no more than six months old.

The most commonly used chemical for sanitisation is chlorine.

Chlorine levels should be maintained at a **minimum of 1.5 parts per million** (ppm) with the use of stabilised chlorine granules or tablets.

WATER BALANCING

pH Control – pH provides a measure of the acidity or alkalinity of the pool water on a scale of 1 to 14 with 1 being acid and 14 being alkaline. The ideal conditions for a swimming pool are to maintain **pH between 7.2 and 7.6**. Lower than this may cause eye and skin irritation, reduced residual chlorine and corrosion of pool fittings. Above this level the effectiveness of the chlorine may be reduced, water may become cloudy and there is an increased possibility of scale formation.

pH control is achieved by the addition of Polachem pH plus (alkali) or Polachem pH minus (dry acid) at a rate of 0.75 kgs per 15,000 gallons and re-testing/dosing every 24 hours until the correct level is reached.

TOTAL ALKALINITY

The Total Alkalinity (TA) level of the pool is a measure of the actual amount of alkali present in the form of bicarbonates, carbonates and hydroxides. It is important because of its effect on pH.

If TA is too high the water becomes resistant to pH change due to a 'buffering' action with possible cloudy water and scale formation. If it is too low the pH level will be unstable and difficult to maintain.

The ideal TA level is **between 80 and 120 ppm**.

TA is increased by the addition of **Alkalinity +** at the rate of 1.2 kg per 15,000 gallons for each 10ppm that the TA is too low.

To reduce TA when it is above 120ppm add 1.5 kg of **pH Minus** per 15,000 gallons for each 10ppm that the TA is too high.

In both cases, the water should be re-checked after 24 hours and further adjusted.

WATER HARDNESS

The 'total hardness' of water is the measurement of the amount of calcium and/or magnesium present in the water expressed as ppm calcium carbonate. If it is too low the water will draw calcium from the pool's surroundings (e.g. grouting) or if too high it will lead to scale formation.

The ideal level of total calcium hardness is a **minimum of 200 ppm**.

Regular Maintenance & Good Practice

SHOCK TREATMENT

Despite routine treatment with chlorine or other sanitising agents the pool should be regularly treated with shock chlorine every two weeks. This treatment generally restores water clarity and oxidises organic wastes which can cause malodour and eye irritation.

Typical treatment is to dissolve 750gms of Polachem shock chlorine granules per 15,000 gallons of pool water in a bucket of pool water and to distribute this throughout the pool. With liner pools care should be taken to ensure that the granules are fully dissolved; undissolved granules can cause localised high concentrations of chlorine which may bleach coloured or patterned liners in places. Care should also be taken in handling the dissolved shock chlorine as it can irritate skin and bleach clothing quickly.

The dosage can be doubled if, particularly in hot weather, there is evidence of algal growth. Bathing should be avoided for at least two hours after shocking; better still is to add shock chlorine at the end of the day when bathing is finished; this will reduce the degrading effect of sunlight and ensure that the pool is ready to use the following morning.

ALGICIDE

Polachem algicide is a useful back up to chlorine to prevent the growth of algae and is effective treatment. An initial first dose of 1500ml per 15,000 gallons and then every two weeks at a dose of 500ml per 15,000 gallons of water.

BACKWASHING THE FILTER

It is important to backwash the filter weekly to disperse to waste any detritus collected during the week. This process may vary slightly depending on your particular filtration but generally you should;

- 1 Switch off the pump using the contactor in the pool control panel
- 2 Set the multiport valve on the filter to BACKWASH
- 3 Switch on the pump for at least three minutes or until the water in the sight glass is clear
- 4 Switch off the pump and set the multiport valve to RINSE
- 5 Run the pump for 15-30 seconds
- 6 Switch off the pump, reset the valve to FILTRATION and restart the pump.

SUGGESTED WEEKLY SERVICE

Regular maintenance of the pool and all its equipment will increase its life and make you aware of problems as they occur rather than afterwards when costly repair bills may result.

- 1 Clean the filter pump basket strainer
- 2 Backwash the filter
- 3 Clean the skimmer baskets
- 4 Vacuum the pool
- 5 Clean the automatic pool cleaner (if used)
- 6 Check and adjust the chlorine and pH levels
- 7 Check your stock of pool chemicals and reorder as necessary
- 8 Apply shock chlorine (fortnightly)

Please Note – Polar Pools provides a full range of chemicals and valet services to suit your needs when time is in short supply – just call 01440 761006

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