



# pH BOUNCE

An unstable pH can give rise to either corrosion or scaling.

## Probable cause

- Low total alkalinity

Total alkalinity is a measure of the alkaline materials (mainly bicarbonates) in the pool water and should be maintained in the range 80 - 150mg/l (ppm).

Having total alkalinity in this range prevents sudden pH fluctuation ('bounce'). Low total alkalinity can cause the pH to fall suddenly resulting in corrosive conditions.

A high total alkalinity will make the pH resistant to change and the water will then become what is described as over buffered.

Please see Troubleshooting Guide 12 for '**pH Resistant to Movement**'.

SANITISER



SHOCK



WATER BALANCE



PREVENTION OR CURE



## Low total alkalinity can arise from a number of causes:

- The make up (fresh mains) water may have a low total alkalinity, usually associated with a 'soft' water source. However, in areas where mains water with a low pH and low total alkalinity has been found to be 'aggressive' towards old (lead) pipe work systems, the water supply companies have artificially boosted the total alkalinity with chemical additions. It is therefore now unusual to find mains water with an excessively low total alkalinity (& low pH).
- pH reducing chemicals such as dry acid or hydrochloric acid may have been dosed incorrectly. If these materials are dosed in one spot and not distributed evenly around the pool, an area of high local acidity will be created. The bicarbonates cannot survive in these areas of high acidity (low pH) and some total alkalinity will be destroyed. Please see the Troubleshooting Guide for 'High pH' for instructions on dosing pH reducing chemicals.
- High local acidity can be caused by turning the circulation off when slow dissolving chlorine tablets are being used in the skimmer, pump basket or in a circulatory feeder device. A solution of low pH and relatively high chlorine content will be formed in these stagnant conditions which will have the ability to destroy total alkalinity.

**TIP:** When slow dissolving chemicals such as chlorine tablets are present in the system, the circulation should be kept running continuously whenever possible.

## What you may need...

**Fi-Clor Alkalinity Increaser 5Kg**  
To raise the total alkalinity



## Action to be taken

**Before adding any chemicals to your pool, ensure nobody is swimming. Keep the circulation running to ensure adequate dispersion of the chemicals**

### To raise the total alkalinity

- To raise the total alkalinity, dose **Fi-Clor Alkalinity Increaser** at a rate of 1.5kg per 50m<sup>3</sup> (11,000 gallons). This dose is designed to increase the total alkalinity by approximately 10 - 20mg/l (ppm) and should be repeated as necessary on a daily basis until the total alkalinity is above 100mg/l (ppm). With the circulation running, distribute around the deep end, avoiding the skimmers.
- 100mg/l (ppm) is the generally recognised minimum total alkalinity for pools sanitised with stabilised chlorines or bromine. However, for pools sanitised with **Fi-Clor Superfast Granules** or **Supercapsules** it may be allowed to fall to 80mg/l (ppm) before corrective action is required.
- If pH and total alkalinity both need correction, treat the total alkalinity first.
- If unable to test for total alkalinity, take a fresh sample of pool water to your approved Fi-Clor dealer who will carry out the test and advise on any necessary treatment.
- The table opposite gives dose rates for the amount of Alkalinity Increaser required to raise the total alkalinity by approximately 10 - 20mg/l for various volumes of pool water.

m <sup>3</sup>	Gallons	Dose Rate
5	1,000	150
11	2,500	330
23	5,000	690
34	7,500	1.0
45	10,000	1.4
50	11,000	1.5
57	12,500	1.7
68	15,000	2.0
80	17,500	2.4
91	20,000	2.7
114	25,000	3.4
136	30,000	4.1

Weights in RED are grams    Weights in BLUE are kilos