



The Ripple Effect - Using The Wrong Tablet can have Major Impact

Even if you go through all the right motions and follow all the guidelines, one very simple – yet surprisingly common - oversight will destroy the accuracy of your pool water analysis

Everyone knows how important the regular analysis of swimming pool water is for good hygiene, the safety of bathers and for the protection of the plant. Considerable amount of time and money is invested in getting the right results - but did you know these results could be meaningless if you are not using the correct type of tablets?

There are a variety of tablets available in the market today. Each type has been developed for a specific testing system and it is not a case of mix-and-match. Far from it: it is essential that the right tablet is used for the right job.

There are three main categories of tablets: **Rapid, Standard / Comparator and Photometer**. It is not the case that one is superior or inferior. It is simply that each has been formulated to react differently and provide the most accurate reading to its appropriate system / methodology.

Rapid Tablets

Rapid Tablets are designed to automatically dissolve when they are added to a pool sample without the need to use a crushing rod. They dissolve to leave a slightly cloudy sample and are designed for use on the entry-level, domestic type kits with plastic cubes or discs. The cloudiness of the sample is compensated for by the opaqueness of the disc or block being used i.e. you are comparing like for like. This type of tablet should never be used in a glass-based comparator or photometer as the 'cloudiness' of the sample impairs measurement or is picked up as part of the reading. Rapid tablets can easily be identified as they normally have **green print** on the foil.

Standard / Comparator Tablets

Higher-end Comparator Systems, such as the Lovibond® 2000, tend to use fixed coloured glass for more accuracy and longevity. The clarity of the glass, however, renders the window clear so they need a tablet that dissolves completely leaving absolutely no residue or cloudiness. Again, this ensures that the sample and the comparator used for comparing are like for like. Standard / Comparator tablets are harder than rapid tablets and need to be crushed using an appropriate clean rod. They normally have **black print** on the foils.

Photometer Tablets

Tablets used in photometers must also dissolve completely since any residue will be picked up as an impurity and will affect the reading, giving falsely high results. Indeed, of all the systems, photometers are the most sensitive and susceptible to giving incorrect readings if the wrong tablet is used.

Without going in to technical detail, photometry is based on the measurement of wavelengths (the transmission and absorbance of light). Photometers work by taking a zero in a clear clean sample, adding the appropriate tablet, measuring the colour change and converting this to a reading. Anything in the vial that may prevent the transmission of light is therefore picked up as part of the reading and gives a false result.

Because of the photometric principal, however, it was necessary to develop precise tablet formulas for some of the tests. Specifically for pH and alkalinity, photometer grade tablets are required as these are formulated in a significantly different way to standard tablets. These will have the word **photometer** printed on the foil and again, if required, these must be used to get good accurate results

As with all testing, it is important to remember you are measuring very small quantities (parts per million) and anything that affects these readings will mean the results you obtain are not as accurate as they could be. Therefore, apart from carrying out the normal checks associated with pool water testing, it is important that you check the correct tablets are being used. There is never a better time than 'now' to check the stocks and make sure the system and tablets you have are matched – if not, 'now' is also the time to get them changed. It is also recommended that you check the use-by date to ensure the shelf-life is still valid although, with most recognised brands, the guaranteed shelf-life should be a minimum of five years.

Pool Water testing is essential. Tablets play an important part in that testing. And remember, testing is only one part of the process - you should always remember the three R's – Read, Record and React.