

12 Steps You Should Take To Assure Accuracy In Water Testing

12 steps to follow to assure that you are following all the proper water testing procedures:

1. **Representative Water Samples:** The location in the pool where the water sample is taken has a significant bearing on the representative chemical determinations. Water samples should be taken at least 18 inches below the water surface in areas away from the return line. Insert a clean plastic bottle, bottom-side up, to the required depth and turn the bottle top side up to receive the sample of water for testing.
2. **Proper Sample Volume:** Accurate measurements cannot be assured if the sample size is not correct. All water samples, put into a sample container and filled to a marked fill line, display a curvature at the surface of the water. This curvature is called the meniscus and is due to wetting of the sides of the container by the sample water. Always fill the container so that the low point of the meniscus rests on the fill mark. Have the fill line at eye level when filling the sample container.
3. **Match You Colors:** Matching colors in colorimetric determinations is done by holding the comparator up to northern light.
4. **Swirl . . . Swirl . . . Swirl . . .:** Proper results depend on either color comparisons or detection of a color change (endpoint). For this to happen, reagents must be thoroughly mixed in the water sample. When titrating, the sample must be swirled after each drop of titrant is added to see if the color change is permanent (the endpoint has been reached).
5. **Correct Drop Size:** When adding any reagent drop-wise to a water sample, hold the dropper bottle vertically (straight up and down). Holding the bottle at an angle while adding may distort the drop size and lead to inaccurate results. Static electricity sometimes builds up around the dropper tip, reducing the drop size and resulting in a false high reading. To correct this problem, simply wipe around the dropper tip with a clean, damp cloth or paper towel to remove the static electricity.
6. **Prepare for Next Test:** After testing, flush out sample cells with tap or fresh water to avoid any residual from interfering or contaminating the next test. In addition, colored solutions remaining in the test cell may stain the sides of the cell, compromising color interpretation. Finally, replace reagent bottle caps and securely tighten to avoid external contamination.
7. **Always follow manufacturer's instructions.**
8. **Never interchange reagents from other kits or other manufacturers.**
9. **Be sure to use the correct amount of reagent required for the test.**
10. **Test water immediately after sampling:** If the sample sits for as little as one minute after removal, values may decrease —especially when testing sanitizer levels.
11. **Always wait one complete filtration cycle after chemical treatment to test water.**
12. **Always use a plastic container to collect water sample:** Glass containers may accidentally break.