



QUALITY CONTROL FOR SERIM TOTAL CHLORINE TESTS

Implementing routine QC procedures using Positive and Negative Control Solutions will increase user proficiency, minimize procedural errors and protect against the inadvertent use of outdated product or product that has deteriorated due to improper storage or handling. Each facility should determine the frequency of testing and the optimal procedures for its own Quality Control Program.

Serim® Chlorine Control Pack (Product Code 5100QC) can be used to prepare a Positive Control Solution for **Serim Residual Chlorine Test Strips (Product Code 5100A, 5100C)**, **Serim HiSENSE™ Test Strips (Product Code 5109)** and **Serim HiSENSE ULTRA 0.1™ (Product Code 5167)**.

The Positive Control Solution is a substitute for chlorine/chloramine; it does not actually contain chlorine/chloramine, but the solution will simulate a positive result (color reaction) on the indicator pad of the test strip.

Chlorine-free, AAMI-quality water can be used as a Negative Control Solution.

Preparation of a Negative Control Solution:

1. Collect 20-mLs of chlorine-free, AAMI-quality water for use as a Negative Control Solution.

Preparation of a Positive Control Solution:

1. Fill the sample cup to the 20-mL line with chlorine-free water.
2. Drop in one Chlorine Control Tablet and wait 2 minutes.

Positive Control Solution should yield results between 0.5 - 2 ppm.

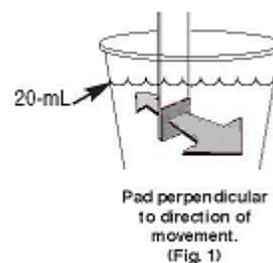
Negative Control Solution should yield results of 0 ppm.

Each QC Test Procedure will use both the Positive and Negative Control Solutions.

QC Test Procedure for Residual Chlorine Test Strips (5100A or 5100C):

Perform quality control testing by following the Residual Chlorine directions below, using Positive and Negative Control Solutions in place of the water sample

1. Immerse indicator pad of a Residual Chlorine Test Strip in the control solution and **move the strip back and forth vigorously for 30 seconds**. The indicator pad must be perpendicular to the direction of strip movement (Fig. 1).
2. Remove strip and interpret results by comparing the indicator pad to color chart on the Residual Chlorine bottle label within 10 seconds.



RESULTS

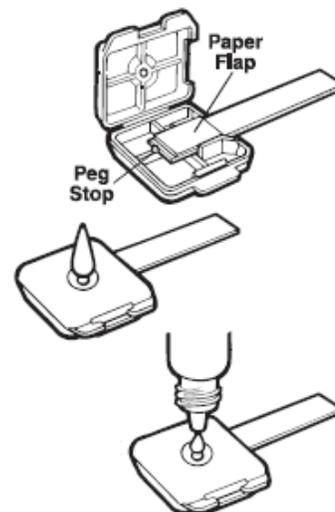
Positive Control Solution should yield results between 0.5 - 2 ppm.

Negative Control Solution should yield results of 0 ppm.

QC Test Procedure for HiSENSE Test Strips (5109):

Perform quality control testing by following the HiSENSE directions below, using Positive and Negative Control Solutions in place of the water sample.

1. Insert a HiSENSE Test Strip into the Strip Holder until it meets the peg stop. Snap the Strip Holder closed.
2. Add the control solution drop-wise until the reservoir in the Strip Holder is just full (do not overfill).
3. Immediately add **1 drop** of HiSENSE Reagent Solution to the control solution in the reservoir.
4. When the control solution has drained (approximately 5 to 8 minutes), remove the HiSENSE Test Strip from the holder and interpret the results.

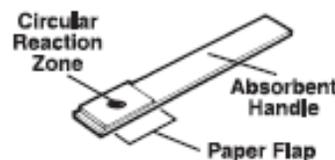


RESULTS

Interpret the results of the HiSENSE Test Strip within 10 minutes after the control solution has drained.

Positive – The Positive Control Solution should yield a positive result; the Reaction Zone (the circular area under the reservoir opening) of the HiSENSE Test Strip will display a distinct blue color that is darker than the surrounding area of the Paper Flap.

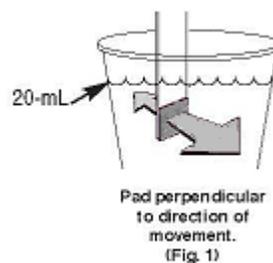
Negative – Negative Control Solution should yield results of 0 ppm; the Reaction Zone of the HiSENSE Test Strip will be no darker than the rest of the Paper Flap.



QC Test Procedure for HiSENSE ULTRA 0.1 Test Strips (5167):

Perform quality control testing by following the HiSENSE ULTRA directions below, using Positive and Negative Control Solutions in place of the water sample.

1. Immerse indicator pad of a HiSENSE ULTRA 0.1 Test Strip in the control solution and **move the strip back and forth vigorously for 30 seconds**. The indicator pad must be perpendicular to the direction of strip movement (Fig. 1).
2. Remove strip from control solution and shake off excess sample.
3. Immediately interpret results by comparing the indicator pad to color chart on the HiSENSE ULTRA 0.1 bottle label.



RESULTS

Positive Control Solution should yield results between 0.1 – 0.5 ppm.

Negative Control Solution should yield results of 0 ppm.

If results with the Quality Control Solutions are not as expected, repeat the control testing. If the results still are not as expected, open a new bottle of strips and repeat the QC procedure. Do not use test strips that do not yield proper results with controls solutions, retain the bottle and any remaining strips and call SERIM at 1-800-542-4670 or (574) 264-3440 or your local SERIM dealer.