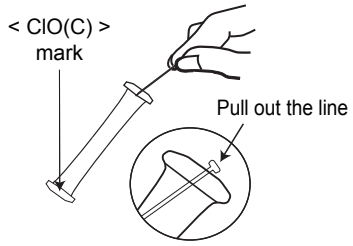
KYORITSU **PACK TEST** ION SELECTIVE **INSTRUCTIONS**

Residual Chlorine
(High range)

Model WAK-ClO(C)

Potassium Iodide color comparison Method
Main reagent: Potassium Iodide
Range: Cl 5 - 1000 mg/L (ppm)

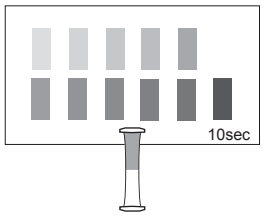
How to use



(1) Remove the line to clear the aperture from the top of the tube.

(2) Press the sides of the tube to expel approximately half of volume.

(3) Immerse the tube in the sample. Release the sides to fill the tube up to the half. Shake the tube lightly a few times.



(4) After 10 secondes, put the tube on the color chart as shown and compare with the standard colors.

How to read the test

After the reaction time, compare the color of the tube with the standard colors. The nearest color indicates the measured value of the sample. A color between two standard colors indicates a value between the two standard values.

Care in handling of PACKTEST before and after use

Keep PACKTEST out of the reach of children.
Keep PACKTEST in a cool, dry and dark place.
PACKTEST should be thrown with burnable garbage. Conform to the legislation of waste management.
Use a package as soon as possible after opening.
The PACKTEST tube must not be opened before and after use.

First Aid Measures

Eye contact → Immediately rinse eyes with water for at least 15 minutes. Consult a physician.
Skin contact → Immediately flush skin with water.
Ingestion → Immediately rinse mouth. Consult a physician.
In case of doubt, consult a physician.

KYORITSU CHEMICAL-CHECK Lab., Corp.
37-11,DEN-ENCHOFU 5 CHOME,OHTA-KU,TOKYO 145-0071 JAPAN
FAX:81-3-3721-0666 http://kyoritsu-lab.co.jp

PACKTEST Residual Chlorine (High range)

Features

The Residual Chlorine (High range) PACKTEST is based on the titration method by Iodide. This PACKTEST is suitable for the measurement of total residual chlorine concentration (free residual chlorine + combined residual chlorine).
For concentrations below 5 mg/L, we recommend to use the Free Residual Chlorine PACKTEST WAK-ClO･DP (0.1-5 mg/L) or Total Residual Chlorine PACKTEST WAK-T･ClO (0.1-5 mg/L).

Cautions

1. Chloride ion Cl^- is not measurable by this method. We recommend to use the Chloride ion PACKTEST, ref: WAK-Cl(200), the Chloride ion (Low range) PACKTEST, ref: WAK-Cl(D) or the Drop Test Chloride, ref: WAD-Cl.
2. The normal pH range is 3 - 9. If necessary, adjust the pH with diluted sulfuric acid or sodium hydroxide solution.
3. The reaction color becomes stronger than 1000mg/L of standard color when the chlorine standard solution is 9000mg/L.
   The reaction color becomes colorless when the standard solution is higher than 90,000mg/L.
4. Ensure that PACKTEST tube is filled up to the half.
5. Partially undissolved reagent will not affect the measurement.
6. Keep sample temperature in the range 15°C - 40°C. Lower temperature necessitates longer reaction time.
7. Read the test under a daylight type lamp.
8. Put the line back into the aperture after using to prevent reagent spilt.

Interferences

Standard colors were determined from standard solutions. However, coexisting substances will cause inaccurate results. The list below reports substances concentrations under which ones interferences are insignificant:

≤ 1000 mg/L : Al^{3+}, B^{3+}, Ba^{2+}, Ca^{2+}, Cl^-, F^-, K^+, Mg^{2+}, Mn^{2+}, Na^+, NH_4^+, Ni^{2+}, NO_3^-, PO_4^{3-}, SO_4^{2-}, Zn^{2+}, Anionic surfactant
≤ 100 mg/L : Fe^{3+}
≤ 10 mg/L : Cr^{6+}
≤ 5 mg/L : Cu^{2+}

Hydrogen peroxide and other oxidizing chemicals can interfere with the colored reaction.
The Residual Chlorine (High range) PACKTEST is not suitable for sample containing starch. Iodide reacts with starch to make a blue-black complex.
The Residual Chlorine (High range) PACKTEST is suitable for sea water samples.