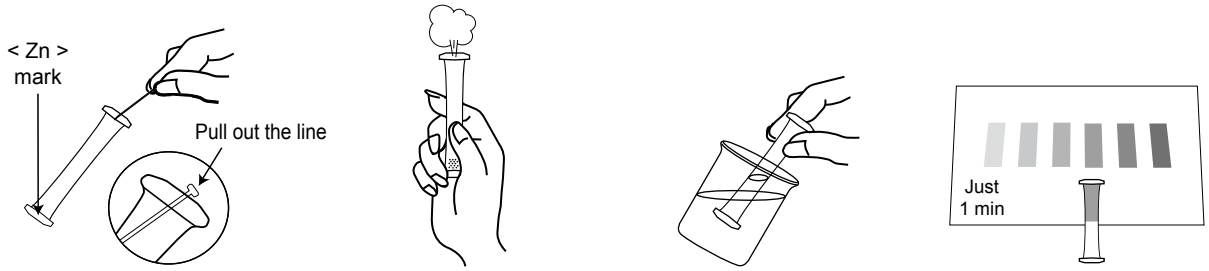
KYORITSU **PACK TEST** ION SELECTIVE **INSTRUCTIONS**

Zinc

Model WAK-Zn

By PAN color comparison Method
Main reagents: 1-(2-pyridylazo)-2-naphtol
Range: 0 - ≥5 mg Zn^{2+}/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. Maintain pressed.

(3) Immerse the tube in the sample. Release the sides to fill the tube up to the half. Shake the tube 5-6 times.

(4) After just 1 minute, 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.

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PACKTEST Zinc

1. The Zinc PACKTEST can measure only divalent state zinc ion (Zn^{2+}) concentration. To measure total zinc, precipitated or chelated Zn^{2+} ions should be dissolved or released before measurement.
2. The normal pH range is 4 - 11. If necessary, adjust the pH with diluted sulfuric acid or sodium hydroxide solution.
3. Ensure that PACKTEST tube is filled up to the half.Larger or smaller sample volume will imply higher or lower value, respectively.
4. The reading of the test must be done exactly 1 minute after.
5. Undissolved reagent does not affect the measurement.
6. Keep sample temperature in the range 15°C - 30°C.
7. Read the test under a daylight type lamp.
8. Put the line back into the aperture after use 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 : As^{3+}, B^{3+}, Ba^{2+}, Ca^{2+}, Cl^{-}, F^{-}, I^{-}, K^{+}, Mo^{6+}, Na^{+}, NH_4^{+}, NO_2^{-}, NO_3^{-}, PO_4^{3-}, SO_3^{2-}, SO_4^{2-}, Phenol, Residual Chlorine, Anionic surfactant
≤ 100 mg/L : Fe^{3+}, Mg^{2+}
≤ 50 mg/L : Cd^{2+}, Cr^{3+}
≤ 20 mg/L : Cr^{6+}, Ni^{2+}
≤ 10 mg/L : Ag^{+}, Pb^{2+}, V^{5+}, Sn^{2+}
≤ 5 mg/L : Co^{2+}, Fe^{2+}
≤ 3 mg/L : Cu^{2+}
Sub-ppm level : Mn^{2+}
The Zn PACKTEST is suitable for sea water samples.

The Zinc PACKTEST can also react with Mn^{2+}. If Mn^{2+} is present in the sample, adjust the pH up to 10~12 in order to precipitate Mn^{2+} .
It is also possible to measure Mn^{2+} concentration using the manganese PACKTEST (ref: WAK-Mn) and to subtract Mn^{2+} concentration from the value provided by the Zinc PACKTEST.