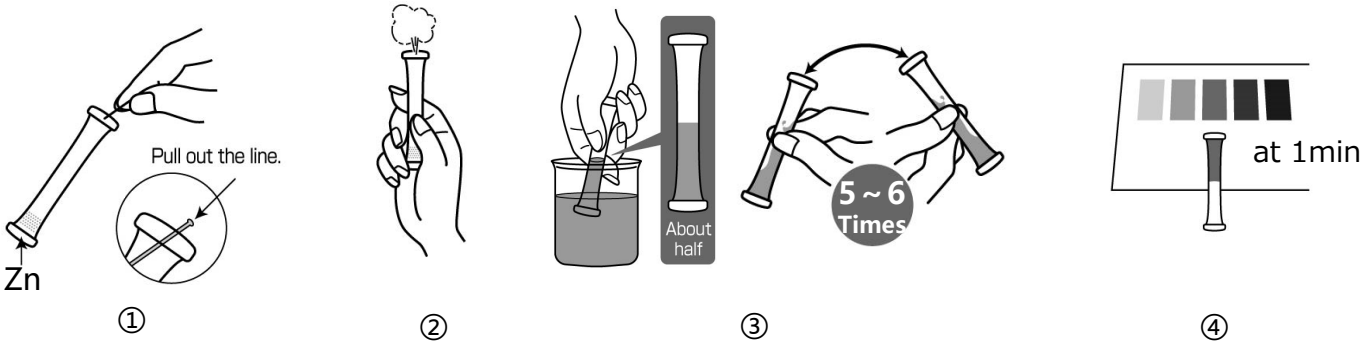
KYORITSU PACKTEST INSTRUCTIONS

Zinc

Model : WAK-Zn

PAN Visual Colorimetric Method
Main Reagent : 1-(2-pyridylazo)-2-naphtol
Measuring Range : 0 - ≥5 mg/L (ppm)

How to Use



① Remove the colored line at the top of the tube to clear the aperture.
② Press the tube's side wall to expel air and hold the tube.
③ Immerse the aperture of the tube into the sample, release the finger to fill up the tube halfway. Invert the tube back and forth lightly for 5-6 times.
④ At 1min, place the tube on the provided Color Sheet as shown to compare the color.

How to Read the Result

After the reaction time, compare the color of the tube with Standard Color. The nearest color indicates the concentration value of the analyte in your sample. A color between two standard colors indicate the value between them.

Handling of PACKTEST Before and After Use

First Aid

Eye Contact → Immediately flush eyes with plenty of water.
Skin/Cloth Contact → Immediately flush contacted area with water.
Ingestion → Immediately rinse mouth.

If swallowed the content or any symptom appears, seek medical advice immediately.
Please refer to SDS for further information.

Storage

Keep unused PACKTEST tubes in the provided preserving bag after opening the laminated package and use them as soon as possible. Depending on the storage condition, the reagent may deteriorate in several days especially under the hot and humid weather. The reagent deteriorates if storing at higher than 50℃ for long time, so keep it at room temperature.

Disposal

For business use, please follow in the manner consistent with relevant laws and regulations. Otherwise, the tube can be disposed as combustible waste.

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PACKTEST Zinc

Caution

1. This product measures only the dissolved zinc (divalent) in the sample. To measure the sample including precipitated or chelated zinc ion, please dissolve prior to the measurement.
2. The optimum pH upon reaction will be around 10. If the pH of the sample exceeds 4-11, please neutralize with dilute sodium hydroxide solution or dilute sulfuric acid prior to measurement.
3. A zinc standard solution of 10 mg/L develops color equal to or darker than “5” on the Standard Color and cause abnormal color development like pale orange to pale purple, then forms reddish brown precipitation at 1000mg/L. When the value is expected to be high, please dilute the sample prior to use.
4. Keep the sample temperature between 15-30℃.
5. Ensure that the PACKTEST tube is filled up to half.
   Larger or smaller sample volume will imply higher or lower value, respectively.
6. The reagent will not dissolve completely. Shake lightly and compare colors.
7. Colorimetry should be performed immediately at 1 minute. Strictly adhere to this time, especially when interfering substances coexist.
8. When comparing to the Standard Color, please be sure to read under the daylight. It may be difficult to determine the color under the direct sunlight, certain florescent lights, mercury lamp or LED.
9. You can put the line back into the aperture to seal. This will avoid possibility of spilling the content of the tube.

Interference

Standard Color is prepared based on the standard solution. If there are some coexisting substances that may cause interference, please compare the result with official method or standard addition method for verification. Below is the list of interference data for on color development when adding each of the single substances to the standard solution.

≤1000mg/L	will not affect	⋯ Al^{3+}, B(III), Ba^{2+}, Ca^{2+}, Cl^-, F^-, I^-, K^+, Mo(VI), Na^+, NH_4^+, NO_2^-,NO_3^-, PO_4^{3-}, SO_3^{2-}, SO_4^{2-}, Anionic surfactant, Residual Chlorine, Phenol
≤100mg/L	〃	⋯ Fe^{3+}, Mg^{2+}
≤50mg/L	〃	⋯ Cd^{2+}, Cr^{3+}
≤20mg/L	〃	⋯ Cr(VI), Ni^{2+}
≤10mg/L	〃	⋯ Ag^+, Pb^{2+}, Sn^{2+}, V(V)
≤5mg/L	〃	⋯ Co^{2+}, Fe^{2+}
≤3mg/L	〃	⋯ Cu^{2+}
Any Level	will affect	⋯ Mn^{2+}

Seawater does not affect the result.

Mn^{2+} interferes with coloring equivalent to zinc.
If coexisting, adjust the pH of the sample water to 10-12 and leave it for about 3 min. Let it settle before measuring. Alternatively, measure the manganese level with PACKTEST Manganese (WAK-Mn) and subtract it from the zinc reading.

【Caution】

- This product is made for analyzing water quality purpose only. Do not use for any other purpose.
- This product contains small amount of chemicals. Please read instruction manual, GHS labels, SDS, and other necessary document thoroughly prior to use.
- Please keep this information handy for future reference.

<Safety>
- Please wash your hands thoroughly before and after the test. Do not inhale the chemical reagents.
- It is highly recommended to wear protective gloves, eye protection, and mask upon using this product.
- Avoid release chemical reagents or waste solution to the environment.

<Storage>
- Please keep this product out of reach of children. Keep it in the dry and dark place at room temperature.

<Other>
- Please check the expiration date shown on the box, and make sure to use within the date.
- Specifications are subject to change without notice.

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