



KYORITSU PACKTEST INSTRUCTIONS

Metals

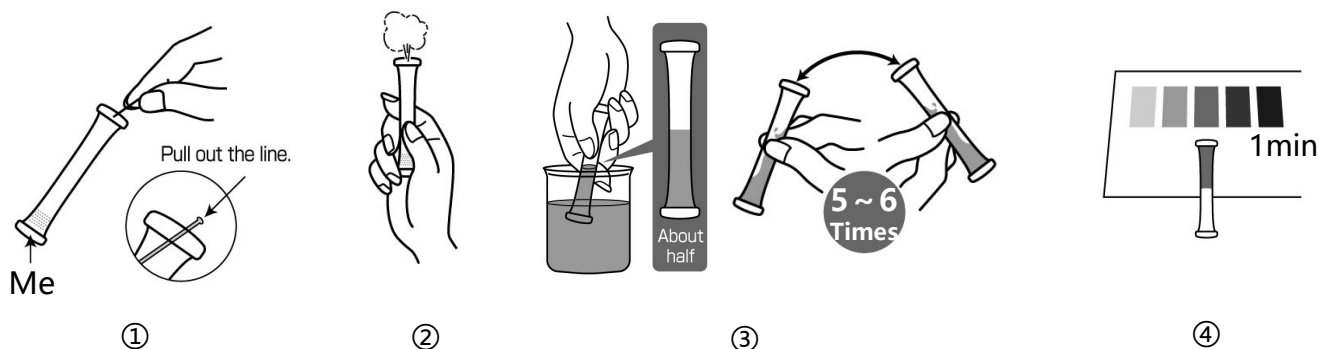
<Cu, Zn, Mn, Ni, Cd> PAN Visual Colorimetric Method

Model: WAK-Me

Main Reagent: 1-(2-Pyridylazo)-2-naphthol

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 After 1min, place the tube on the provided Color Sheet as shown to compare the color.

How to Read the Result

Standard Color indicates approximate value.

After the reaction time, compare the color of the tube with Standard Color. The nearest color indicates the **total concentration value** of 5 types of metal ion.

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. When stored at high temperature (above 50°C) for a long time, reagent will deteriorate so store 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.

PACKTEST Metals(Cu, Zn, Mn, Ni, Cd)

Caution

1. This product allows to measure the sum of 5 types of metal ions (Copper, Zinc, Manganese, Nickel and Cadmium) dissolved in sample water. This cannot measure one single metal when more than one metal ions coexist in the sample.
2. Precipitated or chelated metal ions should be dissolved or released before measurement.
3. 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.
4. A mixed standard solution (2mg/L each of Cu, Zn, Mn, Ni and Cd) of 10 mg/L develops a color similar or darker than ≥ 5 on the Standard Color, and higher concentration develops abnormal color of reddish-purple and generates precipitation. When the value is expected to be high, please dilute the sample prior to use.
5. Keep the sample temperature between 15-30°C.
6. Ensure that the PACKTEST tube is filled up to half. **Larger or smaller sample volume will imply higher or lower value, respectively.**
7. Partially undissolved reagent will not affect the measurement.
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 a color development when adding each of the single substances to the standard solution.

$\leq 1000\text{mg/L}$	not affected	... Al^{3+} , B(III) , Ba^{2+} , Ca^{2+} , Cl^- , Cr(VI) , F^- , I^- , K^+ , Mg^{2+} , Mo(VI) , Na^+ , NH_4^+ , NO_2^- , NO_3^- , PO_4^{3-} , SO_4^{2-} , Anionic Surfactant, Residual Chlorine, Phenol
$\leq 500\text{mg/L}$	"	... V(V)
$\leq 50\text{mg/L}$	"	... Fe^{3+} , Pb^{2+}
$\leq 10\text{mg/L}$	"	... Cr^{3+} , Fe^{2+}
$\leq 1\text{mg/L}$	"	... Ag^+

At Any Level will be affected ... CN^- , Co^{2+}

Seawater does not affect the result.

If sample contains 1000mg/L of Magnesium, it will turn red immediately after drawing the sample into PACKTEST tube. The color will settle from when mixing the reagent inside the tube until it reaches 1min reaction time for colorimetry. So, please be sure to wait and compare the color after 1min.

【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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