



KYORITSU

PACKTEST
ION SELECTIVE

INSTRUCTIONS

Phosphate

<Phosphate-Phosphorus>

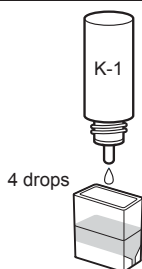
Model WAK-PO4



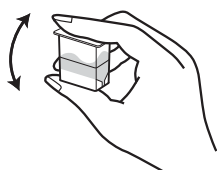
Harmful Corrosive

Molybdenum blue Method
Main reagent: Ammonium MolybdateRange: PO₄³⁻ 0.2 - 10 mg/L (ppm)PO₄³⁻-P 0.1 - 5 mg/L (ppm)

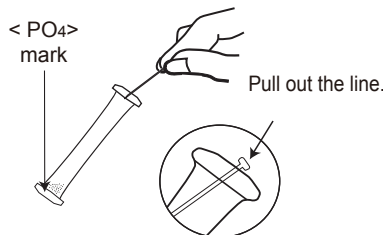
How to use



(1) Fill the Cell (PACKTEST Square Cup) up to the first line (1.5 ml) with sample. Add 4 drops (~0.25mL) of K-1 reagent.



(2) Put on the cap and shake the Cell 2-3 times.

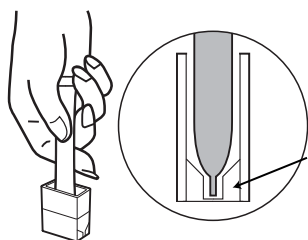


(3) Remove the line to clear the aperture from the top of the tube.



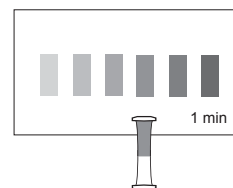
(4) Press the sides of the tube to expel approximately half of volume. Maintain pressed.

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



insert the PACKTEST in the groove, as shown.

(6) After 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.

According to your need, the Phosphate-phosphorus concentration can be determined on the back of the color chart.

Care in handling of PACKTEST before and after use

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.

First Aid Measures

K-1 reagent contains diluted sulfuric acid (pH<2). It is harmful and corrosive.

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 Phosphate

Features

The Phosphate PACKTEST is based on the molybdenum blue color comparison method. The Phosphate PACKTEST allows to measure phosphate concentration easily from sample like industrial waste water.

For environmental water samples, we recommend to use the Phosphate (Low range) PACKTEST (ref: WAK-PO₄(D), 0.05 - 2 mg PO₄³⁻ /L).

Cautions

1. The Phosphate PACKTEST can only measure dissolved PO₄³⁻ ions. Condensed phosphorus or Total-phosphorus can not be measured. A pretreatment is required for the measurement of these parameters.
2. This PACKTEST can measure both phosphate ion (PO₄³⁻) and phosphate-phosphorus (PO₄³⁻-P)
3. The normal pH range is 2 - 9. If necessary, adjust the pH with diluted sulfuric acid or sodium hydroxide solution.
4. The reaction color becomes stronger than 10mg/L of standard color when the phosphate standard is 1000mg/L.
A sample water which is expected high concentration, should be dilute in advance.
5. Ensure that PACKTEST tube is filled up to the half.
6. Partially undissolved reagent will not affect the measurement.
7. Keep sample temperature in the range 15°C - 40°C. Lower temperature necessitates longer reaction time.
8. Read the test under daylight type lamp.
9. 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 ion concentrations under which ones interferences are insignificant:

≤ 1000 mg/L : Al³⁺, B³⁺, Ba²⁺, Ca²⁺, Cd²⁺, Cl⁻, CN⁻, Fe²⁺, I⁻, K⁺, Mn²⁺, Na⁺, NH₄⁺, NO₂⁻, NO₃⁻, Sn²⁺,
SO₄²⁻, Zn²⁺, Phenol

≤ 500 mg/L : Cu²⁺, Ni²⁺

≤ 250 mg/L : Co²⁺, Mg²⁺

≤ 100 mg/L : Cr³⁺, Fe³⁺, Pb²⁺, SiO₂, Residual Chlorine

≤ 50 mg/L : Mo(VI)

≤ 20 mg/L : Cr(VI), F⁻

Sub-ppm level : As(III), As(V)

The Phosphate PACKTEST is not suitable for sea water samples.

Oxidative chemical can interfere with the measurement.