



KYORITSU

PACK TEST
ION SELECTIVE

INSTRUCTIONS

Palladium

Model WAK-Pd

By Potassium Iodide color comparison Method

Main reagents: Potassium Iodide

Range: 1 - 50 mg Pd²⁺/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 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. 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 Palladium

Features

The Palladium PACKTEST is based on the Potassium Iodide absorptiometry. It compares standard color with red-brown Tetraiodopalladate ion which is obtained by reaction between Palladium ion and Potassium iodide. This PACKTEST is suitable for the measurement of dissolved palladium ion (Pd^{2+}) concentration from various samples like process water or industrial wastewater. etc.

Cautions

1. The Palladium PACKTEST can measure only divalent state palladium ion (Pd^{2+}) concentration. To measure total palladium, precipitated or chelated Pd^{2+} ions should be dissolved or released before measurement.
2. The normal pH range is 3 - 9. If necessary, adjust the pH with diluted sulfuric acid or sodium hydroxide solution.
3. Ensure that PACKTEST tube is filled up to the half.
4. Undissolved reagent does not affect the measurement.
5. Keep sample temperature in the range 15°C - 40°C . Lower temperature necessitates longer reaction time.
6. Read the test under a daylight type lamp.
7. 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+} , Cd^{2+} , Cl^{-} , F^{-} , Fe^{2+} , K^{+} , Mg^{2+} , Mn^{2+} , Mo^{6+} , Na^{+} , NH_4^{+} , Ni^{2+} , NO_3^{-} ,
 PO_4^{3-} , SO_4^{2-} , Zn^{2+} , Phenol, Anionic surfactant
- ≤ 300 mg/L : Co^{2+}
- ≤ 200 mg/L : Fe^{3+}
- ≤ 100 mg/L : Ag^{+} , Cr^{3+} , V^{5+}
- ≤ 30 mg/L : NO_2^{-} , Pb^{2+}
- ≤ 10 mg/L : Cr^{6+}
- ≤ 5 mg/L : Au^{3+} , Cu^{2+}
- ≤ 1 mg/L : CN^{-} , Pt^{4+}
- Sub-ppm level : Residual Chlorine, Hydrogen Peroxide

The Palladium PACKTEST is suitable for sea water samples.

Hydrogen peroxide, residual chlorine or other oxidizing chemicals will cause a yellow-brown color development.

Reductive chemical could interfere with the reagent.