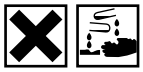
KYORITSU **PACK TEST** ION SELECTIVE **INSTRUCTIONS**

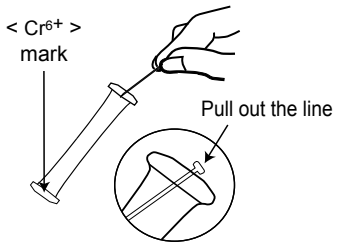
Chromium (Hexavalent)

Model WAK−Cr^{6+}



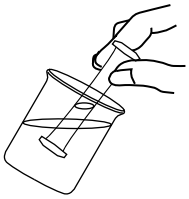
Diphenylcarbazide color comparison Method
Main reagent: Diphenylcarbazide
Range: 0.05 - 2 mg Cr^{6+}/L (ppm)

How to use

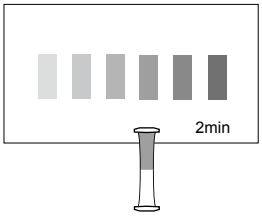


(1) Remove the line to clear the aperture from the top of the tube.

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



(3) Immerse the top of the tube in the sample. Release the sides to fill the tube up to the half.



(4) Shake the tube lightly a few times. After 2 minutes, 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.
The PACKTEST reagent is a strong acid. It is harmful and corrosive.
Use a package as soon as possible after opening.
The PACKTEST tube must not be opened before and after use.

First Aid Measures

Contains a strong 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 Chromium (Hexavalent)

Features

The Chromium (hexavalent) PACKTEST uses the diphenylcarbazide color comparison method. The Chromium (hexavalent) PACKTEST is suitable for the measurement of dissolved chromium ion (Cr^{6+}) concentration from various samples like industrial waste water, environmental water.

Cautions

1. A sample pH higher than 9 must be neutralized with diluted sulfuric acid.
2. The reaction color becomes stronger than 2mg/L of standard color when the chromium standard solution is 200mg/L.
   The reaction color becomes colorless when the standard solution is higher than 200mg/L.
   The reaction color disappears when the standard solution is higher than 1000mg/L.
3. Ensure that PACKTEST tube is filled up to the half.
4. Partially undissolved reagent will not affect the measurement.
5. Keep sample temperature in the range 15°C - 40°C. A lower temperature necessitates a 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 ion concentrations under which ones interferences are insignificant:

≤ 1000 mg/L : Al^{3+}, B^{3+}, Ca^{2+}, Cd^{2+}, Cl^{-}, CN^{-}, F^{-}, I^{-}, Mg^{2+}, Mn^{2+}, Na^{+}, NH_4^{+}, NO_3^{-}, Pb^{2+}, PO_4^{3-}, Sn^{2+}, SO_4^{2-}, Zn^{2+}, Phenol
≤ 500 mg/L : Co^{2+}, Ni^{2+}
≤ 50 mg/L : NO_2^{-}
≤ 30 mg/L : Mo^{6+}
≤ 10 mg/L : Cu^{2+}
≤ 5 mg/L : Residual chlorine
≤ 3 mg/L : Fe^{3+}

The Chromium (hexavalent) PACKTEST is suitable for sea water samples .

Total Chromium

Reducing chemical like disodium sulfite, As^{3+}, Fe^{2+} may reduce of Cr^{6+} to Cr^{3+} and stop the coloured reaction. In this case, we recommend to use the Total Chromium PACKTEST (range: 0.5 - 20 mg Cr/L, ref: WAK-Cr･T) to measure the total chromium content of your samples.