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

Chromium (Total)

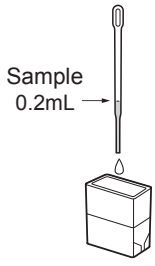
Model WAK- Cr・T

Harmful Corrosive

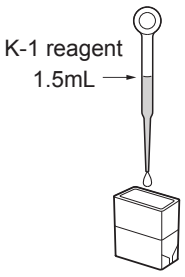
Oxidation and Diphenylcarbazide color comparison Method
Main reagent: Diphenylcarbazide

Range: Cr 0.5 - 20 mg/L (ppm)

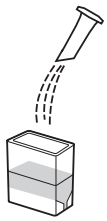
How to use



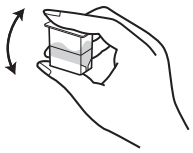
(1) Put 0.2 mL of sample into the Cell (PACKTEST Square Cup) with the small pipette.



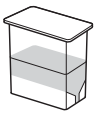
(2) Add 1.5 mL of K-1 reagent with the large pipette.



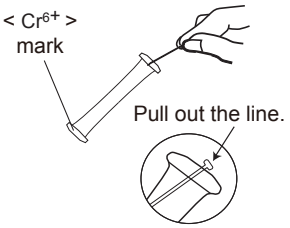
(3) Add the K-2 reagent (content of one small pack).



(4) Put on the cap and shake the Cell a few times, until the reagent dissolve.

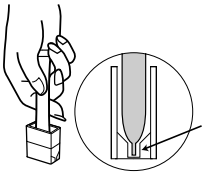


(5) Leave for 5 minutes. While waiting, shake 1-2 times



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

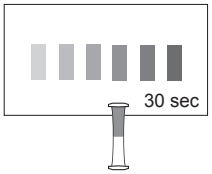
(7) Press the sides of the tube to expel approximately half of volume. Maintain pressed.



(8) 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) Just after 30 seconds, 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.
Do not spill the content of the tube.

First Aid Measures

K-1 reagent contains a strong acid (pH < 2) and silver nitrate. It is harmful and corrosive.

Be careful when handling.

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.

KYORITSU CHEMICAL-CHECK Lab., Corp.
37-11,DEN-ENCHOFU 5 CHOME,OHTA-KU,TOKYO 145-0071 JAPAN
FAX:81-3-3721-0666 http://kyoritsu-lab.co.jp

PACKTEST Chromium (Total)

Features

The Chromium (total) PACKTEST is based on the diphenylcarbazide color comparison method. The Chromium (total) PACKTEST carries out an oxidation at ambient temperature for converting trivalent chromium into hexavalent chromium.
The Chromium (Total) PACKTEST allows to measure easily dissolved chromium in various samples like industrial waste water, environmental water and so on.

Cautions

1. The Chromium (total) PACKTEST allows to measure both dissolved trivalent and hexavalent chromium. If the sample contains precipitate or particulates, use acid or other reagent to dissolve chromium before the measurement.
2. The normal pH range is less than 10. If necessary, adjust the pH with diluted sulfuric acid.
3. Ensure that PACKTEST tube is filled up to the half.
4. Keep sample temperature in the range 20°C - 40°C. Lower temperature necessitates longer reaction time.
5. Compare the color with the color chart just after 30 seconds. After 1 minute, the color fades away or can change gray and slightly purple in 0mg/L.
6. Partially undissolved reagent will not affect the measurement.
7. Read the test under a daylight type lamp.
8. Rinse the small dropper with sample before to use it.
9. Put the line back into the aperture after use to prevent reagent spilt.
10. PACKTEST become clouded when the tube is filled up the sample.

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+}, As^{3+}, B^{3+}, Ca^{2+}, Cd^{2+}, Cl^{-}, CN^{-}, Co^{2+}, Cu^{2+}, F^{-}, Fe^{2+}, Fe^{3+}, I^{-}, K^{+}, Mg^{2+}, Na^{+}, NH_4^{+}, Ni^{2+}, NO_3^{-}, Pb^{2+}, PO_4^{3-}, SO_4^{2-}, Zn^{2+}, Sulfite ion, Sodium bisulfite solution
≤ 100 mg/L : NO_2^{-}
≤ 50 mg/L : Residual chlorine, Phenol
≤ 10 mg/L : Mn^{2+}

The Chromium (total) PACKTEST is not suitable for sea water sample.