

## Zinc

Test kit for the determination on zinc ions  
in surface water and sewage**Method:**

Determination of zinc with zincon

**Measurement range:**0.5–3 mg/L Zn<sup>2+</sup>**Contents of test kit (\*refill pack):**

sufficient for 120 tests

16 mL Zn-1\*

12 mL Zn-2\*

27 mL Zn-3\*

2 screw-plug measuring glasses

1 slide comparator

1 colour chart

1 plastic syringe 1 mL

1 instructions for use\*

**Hazard warning:**

Zn-1 contains potassium cyanide 0.1–1 %, Zn-3 contains chloral hydrate 10–20 %.

For further information ask for a safety data sheet.

**Procedure:****a) colorimetric determination with color chart***also refer to the pictogram on the back of the color chart*

1. Pour a **1 mL** water sample into each of the measuring glasses using the plastic syringe.

Place a measuring glass on position A in the comparator.

**Only add the reagent to measuring glass B.**

2. Add **2 drops of Zn-1**, seal the glass and mix.
3. Add **2 drops of Zn-2**, seal the glass and mix.
4. Add **5 drops of Zn-3**, seal the glass and mix.
5. Open the glass after **1 min** and place it on position B in the comparator.
6. Slide the comparator until the colours match in the inspection hole on top. Check the measurement reading in the recess on the comparator reed. Mid-values can be estimated.
7. After use, rinse out both measuring glasses thoroughly and seal them.

**b) photometric determination with photometer PF-12**

Requisite accessories: reaction tubes 16 mm OD (REF 916 80)

Sample	Blank value
<ol style="list-style-type: none"> <li>1. Rinse reaction tube 16 mm OD several times with sample and fill with <b>5 mL</b> sample.</li> <li>2. Add <b>5 drops Zn-1</b>, close and mix.</li> <li>3. Add <b>5 drops Zn-2</b>, close and mix.</li> <li>4. Add <b>10 drops Zn-3</b>, close and mix.</li> </ol>	<ol style="list-style-type: none"> <li>1. Fill reaction tube 16 mm OD with <b>5 mL</b> sample.</li> </ol>

Reaction time: 1'00 min

After use, rinse out both reaction tubes thoroughly and seal them.

**Interferences:**

The following ions will not interfere:  $\leq 1000 \text{ mg/L Cl}^-$ ;  $\leq 500 \text{ mg/L Ca}^{2+}$ ,  $\text{SO}_4^{2-}$ ;  $\leq 200 \text{ mg/L Cr(VI)}$ ,  $\text{PO}_4^{3-}$ ;  $\leq 100 \text{ mg/L Mg}^{2+}$ ,  $\text{Mo(VI)}$ ;  $\leq 10 \text{ mg/L Al}^{3+}$ ,  $\text{Cu}^{2+}$ ,  $\text{Ni}^{2+}$ ;  $\leq 5 \text{ mg/L Fe}^{3+}$ ;  $\leq 0,5 \text{ mg/L Cd}^{2+}$ ,  $\text{Pb}^{2+}$ ,  $\text{Mn}^{2+}$ ;  $\leq 0,1 \text{ mg/L Cr(III)}$ .

The method can be applied also for the analysis of sea water after dilution (1+9).

**Disposing of the samples:**

The used analysis specimens can be flushed down the drain with tap water and channelled off to the local sewage treatment works.

**Storage:**Store the test kit in a cool ( $< 25 \text{ }^\circ\text{C}$ ) and dry place.