

visicolor® HE Alkalinity AL 7

**Test kit for the determination
of acid binding capacity up to pH 4.5**

Contents of test kit (*refill pack):

sufficient for 200 tests with an average alkalinity of
4 mmol/L

- 10 mL indicator m*
- 100 mL titration solution TL AL 7*
- 1 test tube with ring mark
- 1 titration syringe 0–7.2 mmol/L
(1 graduation mark \triangleq 0.2 mmol/L)
- 2 plastic dropping tips

Hazard warning:

Indicator m contains ethanol 55–75%.

For further information, please ask for safety data sheet.

**Procedure:**

1. Rinse test tube several times with the test sample and fill to ring mark.
2. Add **1 drop of indicator m** and mix by shaking. If test sample turns **red**, the alkalinity is zero. If the test sample turns **blue**, proceed as follows:
3. Put dropping tip on to the titration syringe, press

down plunger, dip the tip into the titration solution TL AL 7 and draw up plunger slowly, until the lower rim of the black plunger O-ring is level with value 0 on the barrel scale. The small air pocket below the plunger tip doesn't disturb the determination.

4. **Addition of the titration solution:** We recommend taking the syringe in the left hand and the test tube in the right hand (see drawing) and adding titration solution dropwise while gently shaking the test tube. As soon as the color turns **red**, read off alkalinity from the syringe barrel (lower rim of the black plunger O-ring).
5. If the 1st syringe filling is not sufficient to reach color change (values > 7.2 mmol/L), fill up the syringe once more with titration solution TL AL 7 and titrate to color change as described before. Add the additional used syringe contents.

The method can be applied also for the analysis of sea water.

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.

Note:

To differentiate the alkalinity of hydroxide, carbonate and hydrogen carbonate we recommend *VISOCOLOR® HE Carbonate Hardness C 20* (REF 915 003).

$1 \text{ mmol/L} \triangleq 40 \text{ mg/L NaOH} \triangleq 61 \text{ mg/L HCO}_3^-$