



Alkalinity-m HR T

31

5 - 500 mg/l CaCO₃

Acid / Indicator

Instrument specific information

The test can be performed on the following devices. In addition, the required cuvette and the absorption range of the photometer are indicated.

Instrument Type	Cuvette	λ	Measuring Range
MD 600, MD 610, MD 640, MultiDirect, PM 600, PM 620, PM 630	ø 24 mm	610 nm	5 - 500 mg/l CaCO ₃
SpectroDirect, XD 7000, XD 7500	ø 24 mm	615 nm	5 - 500 mg/l CaCO ₃

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Alka-M-HR Photometer	Tablet / 100	513240BT
Alka-M-HR Photometer	Tablet / 250	513241BT

Application List

- Drinking Water Treatment
- Waste Water Treatment
- Raw Water Treatment
- Pool Water Treatment
- Pool Water Control

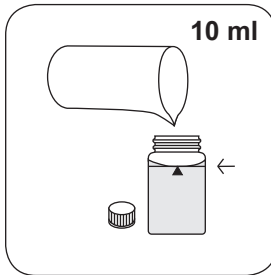
Notes

1. For verification of the result, check whether a thin yellow layer has formed on the bottom of the vial. If this is the case, mix the contents of the vial. This ensures that reaction is complete. Carry out the measurement again and reread the result.

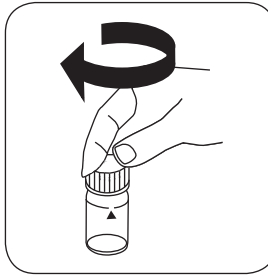
Implementation of the provision Alkalinity HR, total = Alkalinity-m HR = m-Value HR with Tablet

Select the method on the device

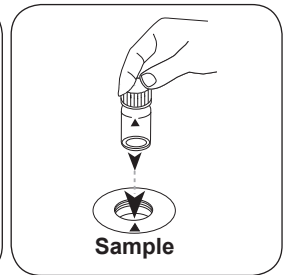
For this method, no ZERO measurements are to be carried out with the following devices: XD 7000, XD 7500



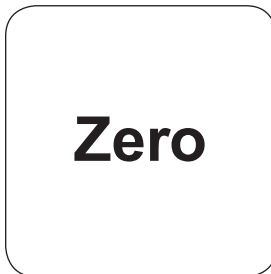
Fill 24 mm vial with **10 ml sample**.



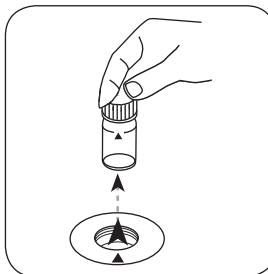
Close vial(s).



Place **sample vial** in the sample chamber. • Pay attention to the positioning.

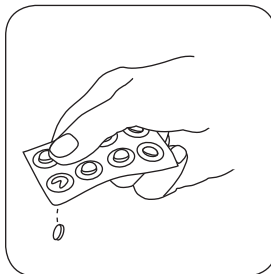


Press the **ZERO** button.

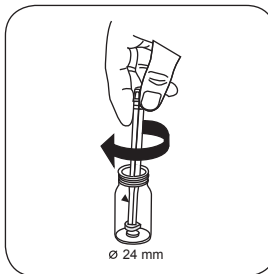


Remove the vial from the sample chamber.

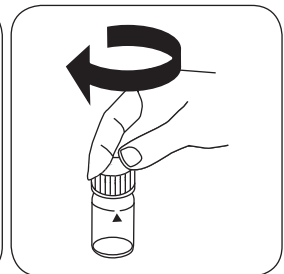
For devices that require **no ZERO measurement**, start here.



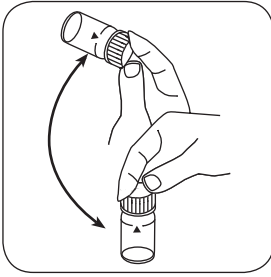
Add **ALKA-M-HR Photometer tablet**.



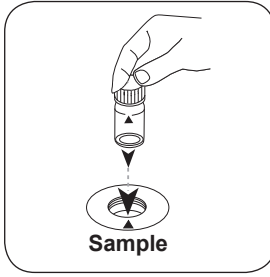
Crush tablet(s) by rotating slightly.



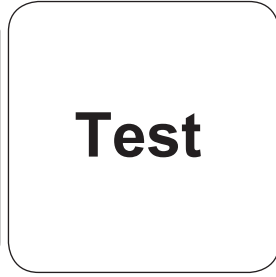
Close vial(s).



Dissolve tablet(s) by inverting.



Place **sample vial** in the sample chamber. • Pay attention to the positioning.



Press the **TEST** (XD: **START**) button.

The result in Alkalinity-m appears on the display.

Analyses

The following table identifies the output values can be converted into other citation forms.

Unit	Cite form	Scale Factor
mg/l	CaCO ₃	1
	°dH	0.01
	°eH	0.07
	°fH	0.1
	°aH	0.058

$$10 \text{ mg/l CaCO}_3 = 10 \text{ mg/l} \times 0,056 = 0,56 \text{ °dH}$$

$$10 \text{ mg/l CaCO}_3 = 10 \text{ mg/l} \times 0,02 = 0,2 \text{ mmol/l KS4.3}$$

Chemical Method

Acid / Indicator

Appendix

Derived from

EN ISO 9963-1

^{a)} determination of free, combined and total | ^{b)} Reactor is necessary for COD (150 °C), TOC (120 °C) and total -chromium, - phosphate, -nitrogen, (100 °C) | ^{c)} MultiDirect: Adapter is necessary for Vacu-vials® (Order code 19 20 75) | ^{d)} Spectroquant® is a Merck KGaA Trademark | ^{e)} alternative reagent, used instead of DPD No.1/No.3 in case of turbidity in the water sample caused by high concentration of calcium and/or high conductivity | ^{f)} additionally required for determination of bromine, chlorine dioxide and ozone in the presence of chlorine | ^{g)} Reagent recovers most insoluble iron oxides without digestion | ^{h)} additionally required for samples with hardness values above 300 mg/l CaCO₃ | ⁱ⁾ high range by dilution | ^{j)} including stirring rod, 10 cm