Alkalinity-m HR T M31

5 - 500 mg/L $CaCO_3$

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 Control

Notes

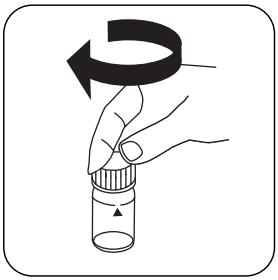
1. For verification of the result, check whether a thin yellow layer has formed on the bottom of the vial. If this is the case, mix the contents of the vial. This ensures that reaction is complete. Carry out the measurement again and reread the result.

Determination of Alkalinity HR, total = Alkalinity-m HR = m-Value HR with Tablet

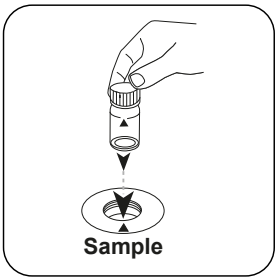
Select the method on the device.

For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500

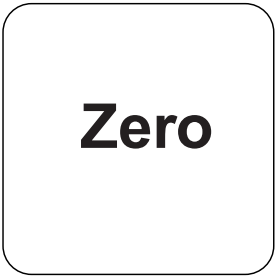
Fill 24 mm vial with **10 mL sample**.



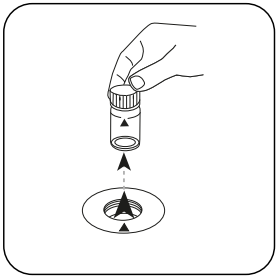
Close vial(s).



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

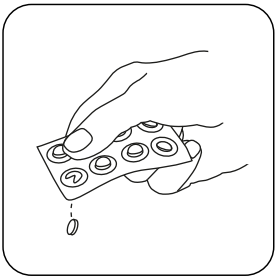


Press the **ZERO** button.

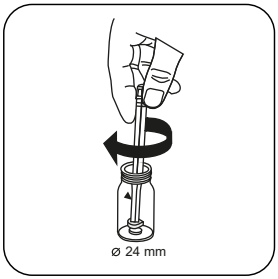


Remove the vial from the sample chamber.

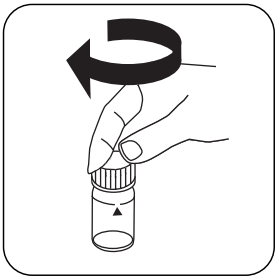
For devices that require **no ZERO measurement** , **start here**.



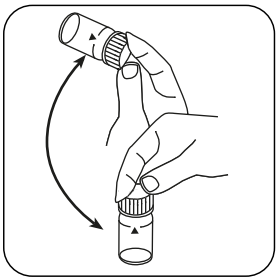
Add **ALKA-M-HR Photometer tablet**.



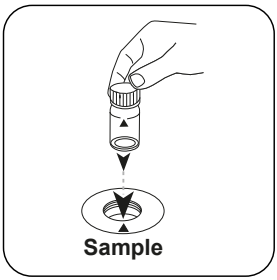
Crush tablet(s) by rotating slightly.



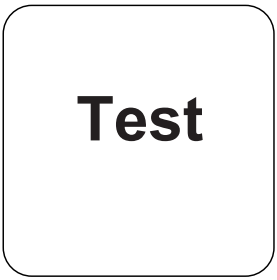
Close vial(s).



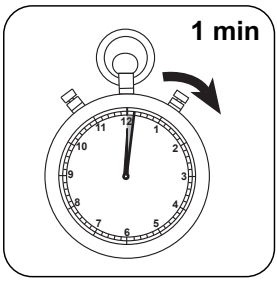
Dissolve tablet(s) by inverting.



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



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



Wait for **1 minute(s) reaction time**.

Once the reaction period is finished, the measurement takes place automatically.

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	0.056
	°eH	0.07
	°fH	0.1
	°aH	0.058
	$K_{S4.3}$	0.02

Chemical Method

Acid / Indicator

Appendix

Calibration function for 3rd-party photometers

Conc. = a + b•Abs + c•Abs^2 + d•Abs^3 + e•Abs^4 + f•Abs^5

	ø 24 mm	□ 10 mm
a	-2.56422 • 10^{+1}	-2.56422 • 10^{+1}
b	6.02918 • 10^{+2}	1.29627 • 10^{+3}
c	-3.78514 • 10^{+2}	-1.74968 • 10^{+3}
d	1.37851 • 10^{+2}	1.37002 • 10^{+3}
e		
f		

Derived from

EN ISO 9963-1