



Alkalinity-m T

M30

5 - 200 mg/L CaCO₃

tA

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 100, MD 110, MD 200, MD 600, MD 610, MD 640, MultiDirect, PM 600, PM 620, PM 630	ø 24 mm	610 nm	5 - 200 mg/L CaCO ₃
SpectroDirect, XD 7000, XD 7500	ø 24 mm	615 nm	5 - 200 mg/L CaCO ₃

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Alka-M-Photometer	Tablet / 100	513210BT
Alka-M-Photometer	Tablet / 250	513211BT

Application List

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

Notes

1. The terms Alkalinity-m, m-Value, total alkalinity and Acid demand to K_{S4.3} are identical.
2. For accurate results, exactly 10 ml of water sample must be used for the test.





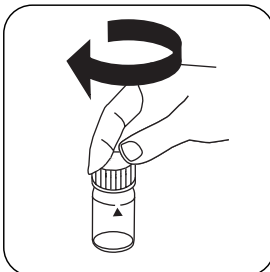
Determination of Alkalinity, total = Alkalinity-m = m-Value with Tablet

Select the method on the device.

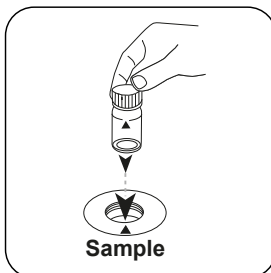
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



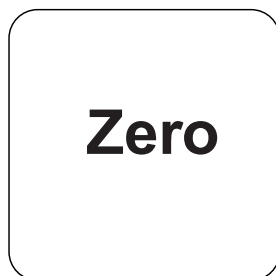
Fill 24 mm vial with **10 mL sample**.



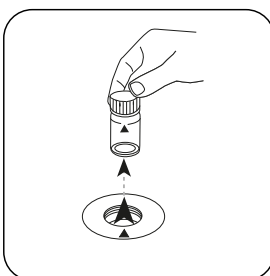
Close vial(s).



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

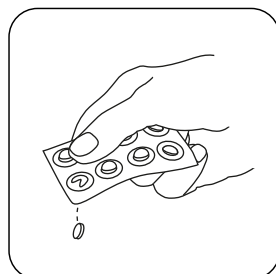


Press the **ZERO** button.

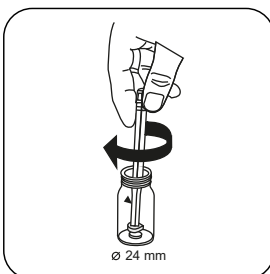


Remove the vial from the sample chamber.

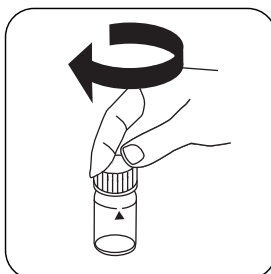
For devices that require **no ZERO measurement**, start here.



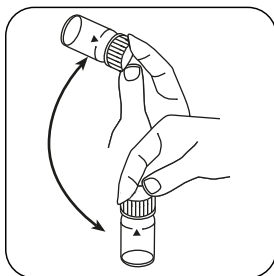
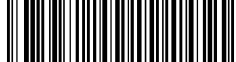
Add **ALKA-M-PHOTOMETER** tablet.



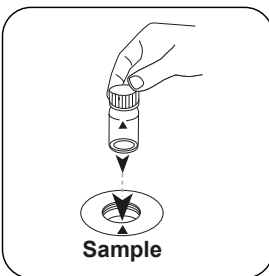
Crush tablet(s) by rotating slightly.



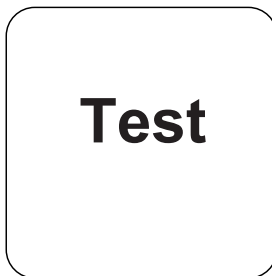
Close vial(s).



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	0.056
	°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

$$\text{Conc.} = a + b \cdot \text{Abs} + c \cdot \text{Abs}^2 + d \cdot \text{Abs}^3 + e \cdot \text{Abs}^4 + f \cdot \text{Abs}^5$$

	ø 24 mm	□ 10 mm
a	$-2.46587 \cdot 10^{+1}$	$-2.46587 \cdot 10^{+1}$
b	$2.67915 \cdot 10^{+2}$	$5.76017 \cdot 10^{+2}$
c	$-1.48158 \cdot 10^{+2}$	$-6.84858 \cdot 10^{+2}$
d	$5.11097 \cdot 10^{+1}$	$5.07947 \cdot 10^{+2}$
e		
f		

Derived from

EN ISO 9963-1