



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.

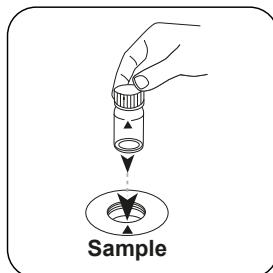
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



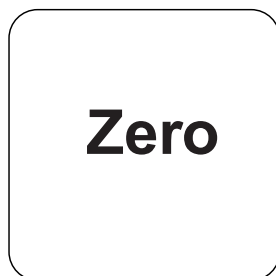
Fill 24 mm vial with **10 mL sample**.



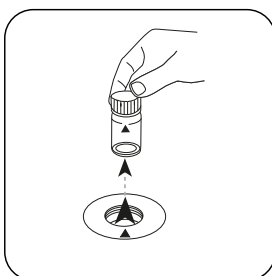
Close vial(s).



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

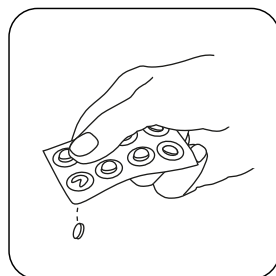


Press the **ZERO** button.

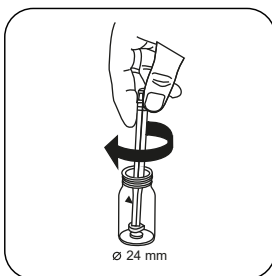


Remove the vial from the sample chamber.

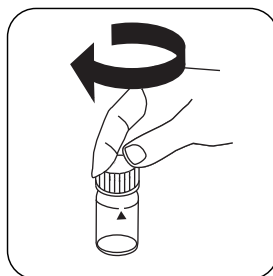
For devices that require **no ZERO measurement**, start here.



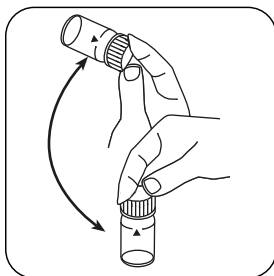
Add **ALKA-M-PHOTOMETER** tablet.



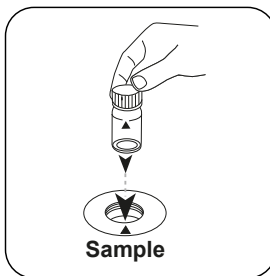
Crush tablet(s) by rotating slightly.



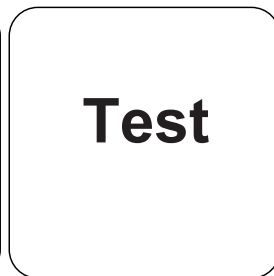
Close vial(s).



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

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

| | ∅ 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