

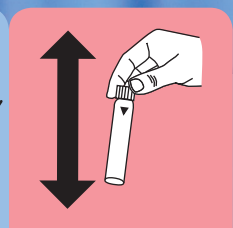
Lovibond® Water Testing

Tintometer® Group



Manual of Methods

MD50 • MD150



KS4.3 T / 20


Method name

Method number

Bar code for the detection of the methods

Measuring range

20

S:4.3

Display in the MD 100 / MD 110 / MD 200

Chemical Method

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 200, MD 600, MD 610, MD 640, MultiDirect, PM 620, PM 630 | ø 24 mm | 610 nm | 0.1 - 4 mmol/l $K_{S4.3}$ |
| SpectroDirect, XD 7000, XD 7500 | ø 24 mm | 615 nm | 0.1 - 4 mmol/l $K_{S4.3}$ |

Material

Required material (partly optional):

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

Application List

- Waste Water Treatment
- Drinking Water Treatment
- Raw Water Treatment

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.

Language codes ISO 639-1

Revision status

EN Handbook of Methods 01/20

Performing test procedure

Implementation of the provision Acid capacity $K_{S4.3}$ 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.

• • •



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 Acid Capacity $K_{S4.3}$ appears on the display.



Hazen 24

M204

10 - 500 mg/L Pt

PtCo

(APHA) Platinum Cobalt Standard
Method

EN

Material

Required material (partly optional):

| Reagents | Packaging Unit | Part Number |
|---------------------|----------------|-------------|
| no reagent required | | |

Preparation

1. Sample collection, preservation and storage:
Pour the water sample into clean glass or plastic containers and analyse as soon as possible after the sample is taken. If this is not possible, fill the container right up to the top and seal tightly. Do not stir the sample and avoid lengthy contact with the air. The sample may be stored in a dark place at a temperature of 4 °C for 24 hours. Before carrying out any measurements, the water sample should be brought up to room temperature.

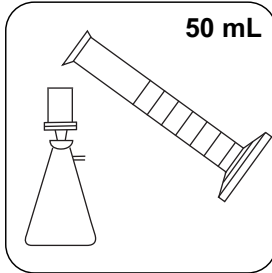
Notes

1. This colour scale was originally developed by A. Hazen as a visual comparison scale. It is therefore necessary to ascertain whether the extinction maximum of the water sample is in the range between 420 and 470 nm, as this method is only suitable for water samples with yellowish to yellowish-brown colouration. Where applicable, a decision should be made based on visual inspection of the water sample.
2. This method is calibrated on the basis of the standards specified by "Standard Methods for the Examination of Water and Wastewater" (also see EN ISO 7887:1994). Pt-Co colour unit $\hat{=}$ 1 mg/L of platinum as chloroplatinate ion
3. Colour may be expressed as "true" or "apparent" colour. The apparent colour is defined as the colour of a solution due to dissolved substances and suspended particles in the sample. This manual describes the determination of true colour by filtration of the water sample. To determine the apparent colour, non-filtrated deionised water and sample are measured.
4. The estimated detection limit for this method is 15 mg/L Pt.

Determination of Colour, true and apparent

Select the method on the device.

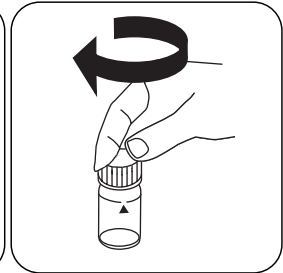
For this method, a ZERO measurement does not have to be carried out every time on the following devices: XD 7000, XD 7500



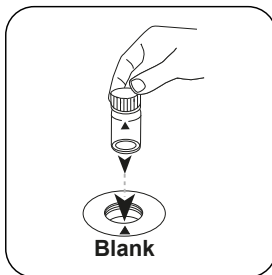
Filter approx. 50 mL sample with a pre-rinsed filter (pore size 0.45 µm).



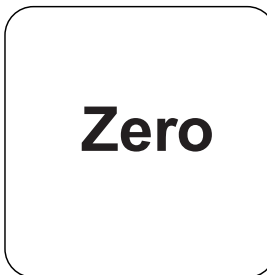
Put **10 mL deionised water** in the blank.



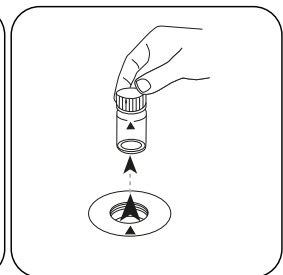
Close vial(s).



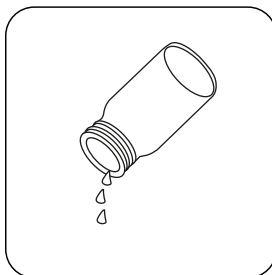
Place **blank** in the sample chamber. Pay attention to the positioning.



Press the **ZERO** button.

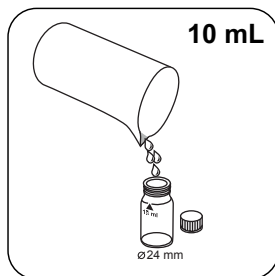
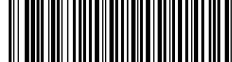


Remove the vial from the sample chamber.

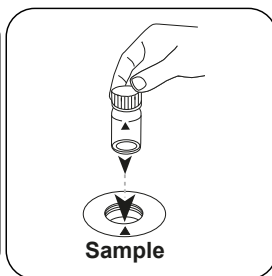


Empty vial.

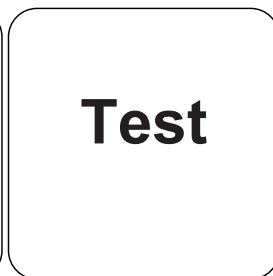
For devices that require **no ZERO measurement**, start here.



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



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



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

The result in Pt-Co units appears on the display.



Chemical Method

(APHA) Platinum Cobalt Standard Method

Appendix

According to

DIN 7887-C1
(WL 430, 455 nm;
Standard: 410 nm)

EN

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