Silicate L M353

0.1 - 8 mg/L SiO_2

Heteropolyblue

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, XD 7000, XD 7500	ø 24 mm	660 nm	0.1 - 8 mg/L SiO_2

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Silica LR L	1 pc.	56R023856
KS104-Silica Reagent 1	65 mL	56L010465
KS105-Silica Reagent 2	65 mL	56L010565
KP106-Silica Reagent 3	10 g	56P010610

Application List

- Boiler Water
- Raw Water Treatment

Preparation

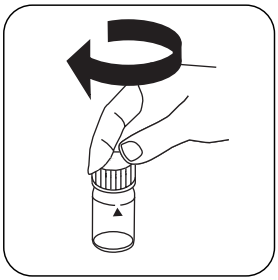
1. The measuring spoon supplied with the reagents must be used for the correct dosage.
2. To get accurate results the sample temperature must be between 20 °C and 30 °C.

Determination of Silicon dioxide with liquid reagent

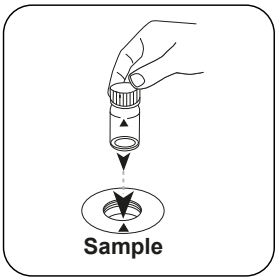
Select the method on the device.

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

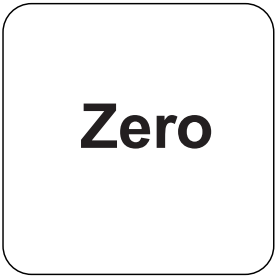
Fill 24 mm vial with **10 mL sample**.



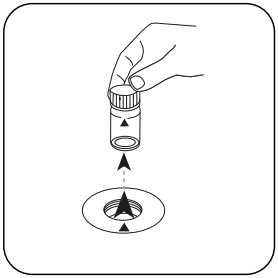
Close vial(s).



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

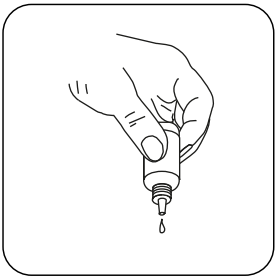


Press the **ZERO** button.

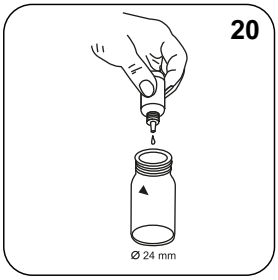


Remove the vial from the sample chamber.

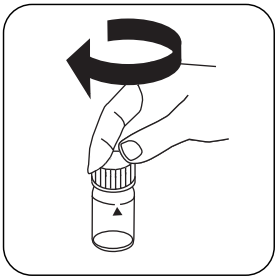
For devices that require **no ZERO measurement** , **start here**.



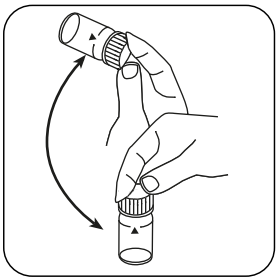
Hold cuvettes vertically and add equal drops by pressing slowly.



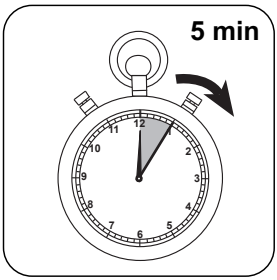
Add **20 drops KS104 (Silica Reagent 1)**.



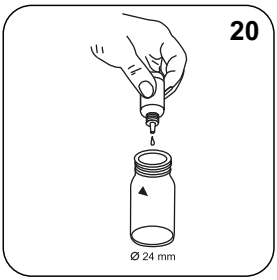
Close vial(s).



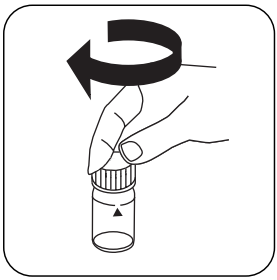
Invert several times to mix the contents.



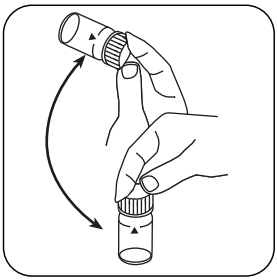
Wait for **5 minute(s) reaction time**.



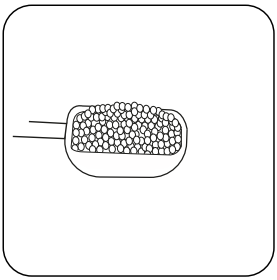
Add **20 drops KS105 (Silica Reagent 2)**.



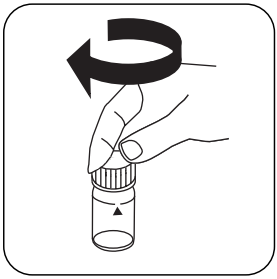
Close vial(s).



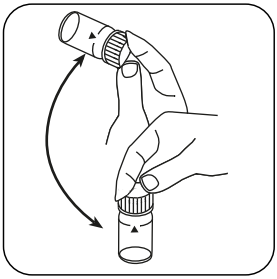
Invert several times to mix the contents.



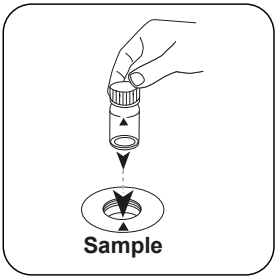
Add **a measuring scoop KP106 (Silica Reagent 3)** .



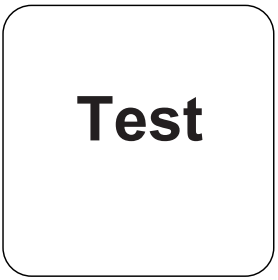
Close vial(s).

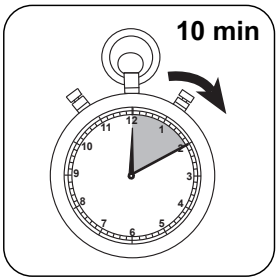


Swirl around to dissolve the powder.



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





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

Wait for **10 minute(s) reaction time**.

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

The result in mg/L Silica 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	SiO_2	1
mg/l	Si	0.47

Chemical Method

Heteropolyblue

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	$-7.53464 \cdot 10^{-1}$	$-7.53464 \cdot 10^{-1}$
b	$4.10695 \cdot 10^{+0}$	$8.82994 \cdot 10^{+0}$
c		
d		
e		
f		

Interferences

Persistant Interferences

- At a temperature below 20 °C no complete reaction occurs, thus reducing findings are to be expected.

Derived from

Standard Method 4500-SiO2 D