Silicate T M350

0.05 - 4 mg/L SiO_2 Si

Silicomolybdenum Blue

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 600, MD 610, MD 640, MultiDirect	ø 24 mm	660 nm	0.05 - 4 mg/L SiO_2
SpectroDirect, XD 7000, XD 7500	ø 24 mm	820 nm	0.05 - 4 mg/L SiO_2

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
Silica No. 1	Tablet / 100	513130BT
Silica No. 1	Tablet / 250	513131BT
Silica No. 2	Tablet / 100	513140BT
Silica No. 2	Tablet / 250	513141BT
Silica PR	Tablet / 100	513150BT
Silica PR	Tablet / 250	513151BT
Set Silica No. 1/No. 2 100 Pc.#	100 each	517671BT
Set Silica No. 1/No. 2 250 Pc.#	250 each	517672BT

Application List

- Boiler Water
- Raw Water Treatment

Notes

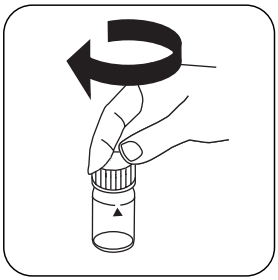
1. The tablets must be added in the correct sequence.

Determination of Silicon Dioxide with Tablet

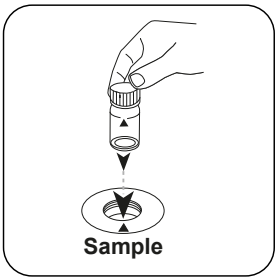
Select the method on the device.

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

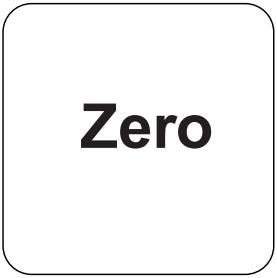
Fill 24 mm vial with **10 mL sample**.



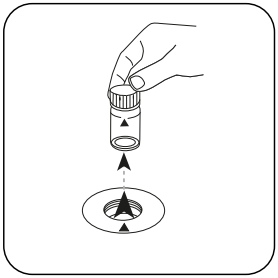
Close vial(s).



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

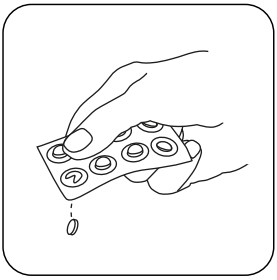


Press the **ZERO** button.

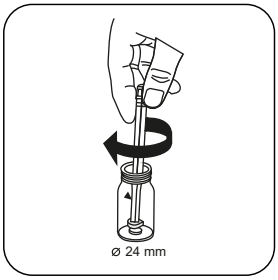


Remove the vial from the sample chamber.

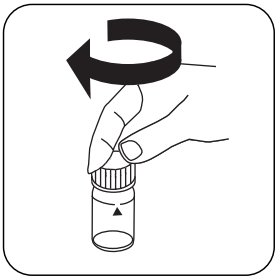
For devices that require **no ZERO measurement** , **start here**.



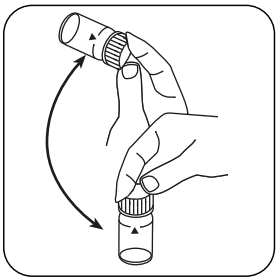
Add **SILICA No. 1 tablet** .



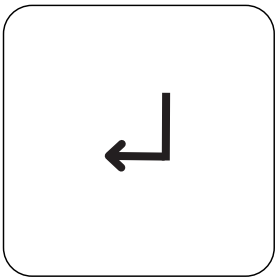
Crush tablet(s) by rotating slightly.



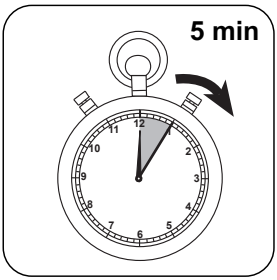
Close vial(s).



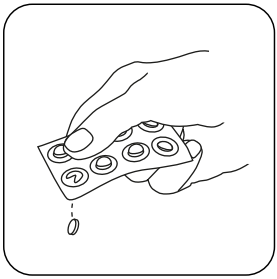
Dissolve tablet(s) by inverting.



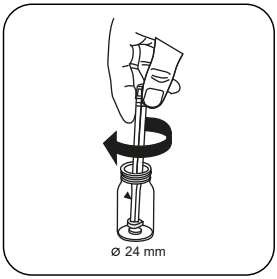
Press the **ENTER** button.



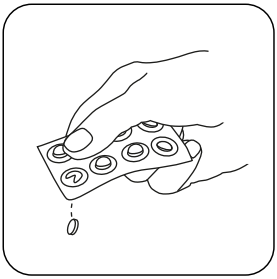
Wait for **5 minute(s) reaction time**.



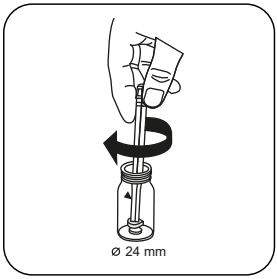
Add **SILICA PR tablet**.



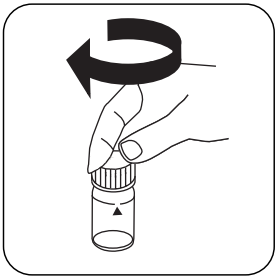
Crush tablet(s) by rotating slightly.



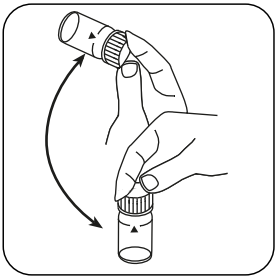
Add **SILICA No. 2 tablet** .



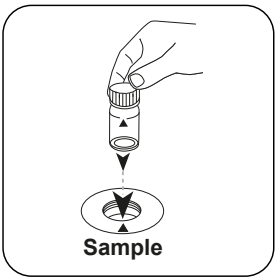
Crush tablet(s) by rotating slightly.



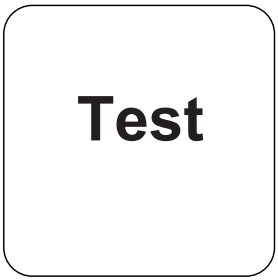
Close vial(s).



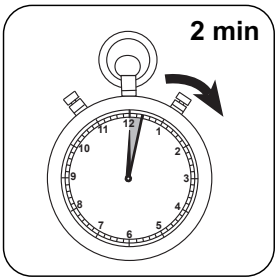
Dissolve tablet(s) by inverting.



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



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



Wait for **2 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

Silicomolybdenum Blue

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	$-4.74138 \cdot 10^{-2}$	$-4.74138 \cdot 10^{-2}$
b	$1.53143 \cdot 10^{+0}$	$3.29257 \cdot 10^{+0}$
c		
d		
e		
f		

Interferences

Removeable Interferences

- Phosphate does not interfere under the reaction conditions.

Derived from

Standard Method 4500-SiO2 C

including stirring rod, 10 cm