Tannin L M389

0.5 - 20 mg/L Tannin

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	ø 24 mm	660 nm	0.5 - 20 mg/L Tannin
XD 7000, XD 7500	ø 24 mm	735 nm	0.5 - 20 mg/L Tannin

Material

Required material (partly optional):

Reagents	Packaging Unit	Part Number
KS539 - Tannin Reagent 1	30 mL	56L053930
Tannin Reagent 2	30 mL	56L746530

Application List

- Boiler Water

Sampling

1. If samples are turbid, filter before testing using GF/C filter papers.
2. For tannin concentrations higher than 20 mg/L the sample may be suitably diluted with distilled water prior to analysis. The result must then be multiplied by the dilution factor.

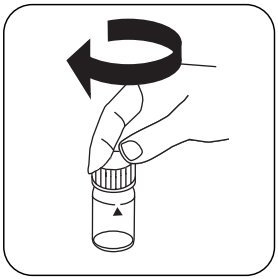
Notes

1. This test is very sensitive to the reaction period time. The sample must be read as close as possible to 5 minutes, starting from the addition of Tannin Reagent 2 being added to the pressing of the TEST key. Incorrect results will be displayed if this is not strictly followed.

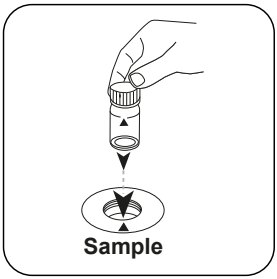
Determination of Tannin with liquid reagents

Select the method on the device.

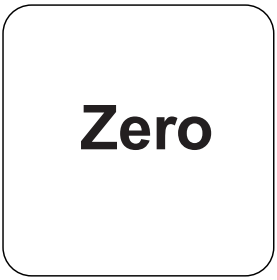
Fill 24 mm vial with **10 mL sample**.



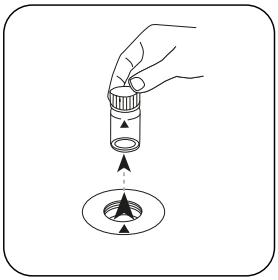
Close vial(s).



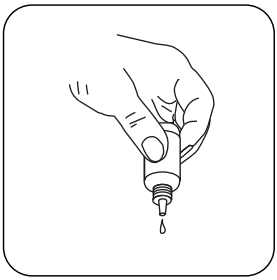
Place **sample vial** in the sample chamber. Pay attention to the positioning.



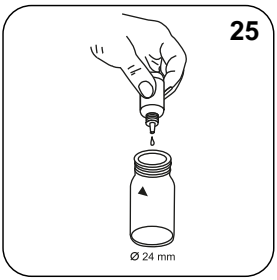
Press the **ZERO** button.



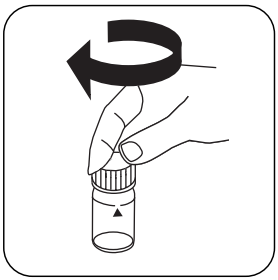
Remove the vial from the sample chamber.



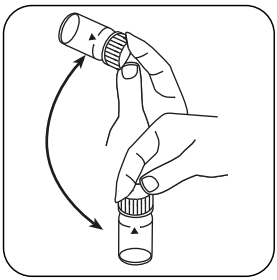
Hold cuvettes vertically and add equal drops by pressing slowly.



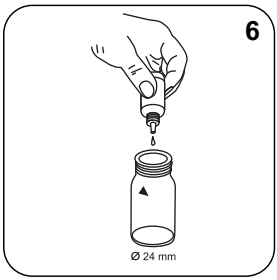
Add **25 drops Tannin Reagent 1**.



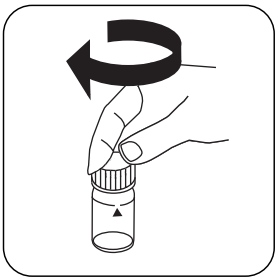
Close vial(s).



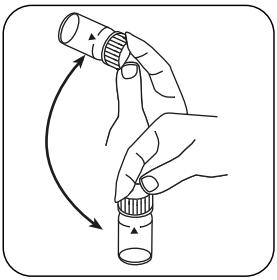
Invert several times to mix the contents.



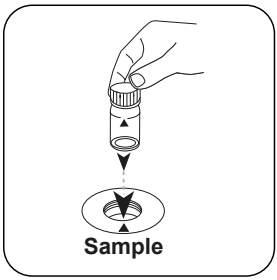
Add **6 drops Tannin Reagent 2**.



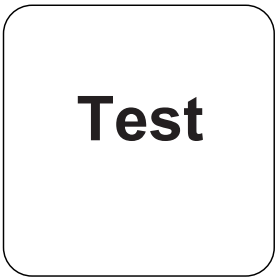
Close vial(s).



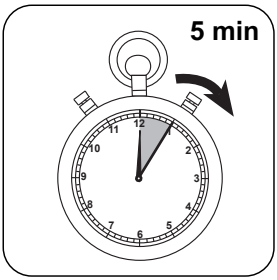
Invert several times to mix the contents.



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



Press the **TEST** button.



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

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

The result in mg/L Tannin appears on the display.

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	3.28646•10^{+0}	3.28646•10^{+0}
b	7.84007•10^{+0}	1.68562•10^{+1}
c		
d		
e		
f		

Method Validation

Limit of Detection	0.13 mg/L
Limit of Quantification	0.26 mg/L
End of Measuring Range	20 mg/L
Sensitivity	7.72 mg/L / Abs
Confidence Intervall	0.93 mg/L
Standard Deviation	0.38 mg/L
Variation Coefficient	0.65 %

Derived from

5550 B Standard Method