

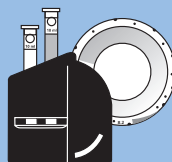
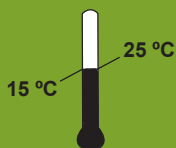
Lovibond® Water Testing

Tintometer® Group



Cooling Water Weekly Test Kit

56I701100



Cooling Water Weekly Test Kit

Cooling Water Monitoring

This test kit includes tests for the most critical parameters that should be measured regularly to minimise the risk of Legionella proliferating to harmful levels in cooling water systems. The test kit DOES NOT test for Legionella bacteria itself but instead test for the conditions to control legionella growth. The kit is designed to be used on systems treated with bromine as the oxidising biocide.

Tests supplied are as follows:

1. Bromine (Comparator)
2. Conductivity/TDS
3. Hardness from a softener
4. pH

Note:

1. The conductivity meter will also measure temperature directly on the display.
2. Further instructions can be found with the corresponding product.

Hardness Calcium

561700270

5 - 600 mg/L CaCO₃

Material

EN

Reagents	Packaging Unit	Part Number
Hardness Calcium Buffer CH2	65 mL	56L014465
Hardness Calcium Indicator CH1P	Powder / 20 g	56P021620
Hardness LR Titrant TH3	65 mL	56L016265
Hardness HR Titrant TH4	65 mL	56L014565
Hardness Total Indicator TH1P	Powder / 40 g	56P028340
Hardness Total Buffer TH2	65 mL	56L016065

The following accessories are required.

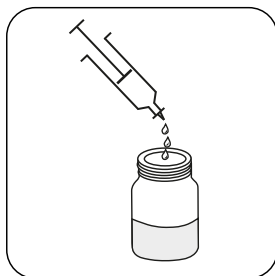
Accessories	Packaging Unit	Part Number
Syringe, plastic, 20 mL	1 Pieces	56A006501
Titration jar with cap, plastic, 60 mL	1 Pieces	56A006701

Sampling

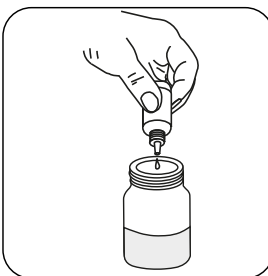
Select the sample volume from the table according to the expected measuring range and read off the factor to calculate the result.

Expected Range	Titration used	Sample Size	Factor
5-15 mg/L	Hardness LR Titrant TH3	40 mL	0.5
10-30 mg/L	Hardness LR Titrant TH3	20 mL	1
20-60 mg/L	Hardness LR Titrant TH3	10 mL	2
50-150 mg/L	Hardness HR Titrant TH4	40 mL	5
100-300 mg/L	Hardness HR Titrant TH4	20 mL	10
200-600 mg/L	Hardness HR Titrant TH4	10 mL	20

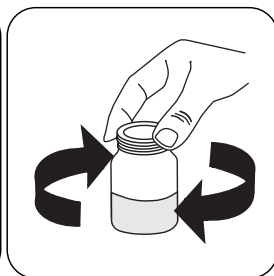
Determination of Hardness Calcium



Attention! Select the appropriate sample volume according to the instructions in the chapter Sampling.

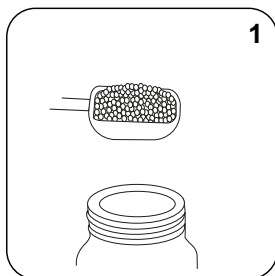


Add **4** drops of **Hardness Calcium Buffer CH2** per **10 mL** of sample.



Swirl to mix.

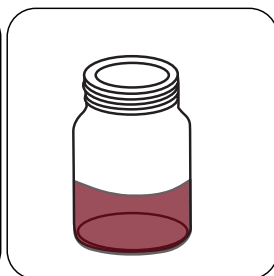
EN



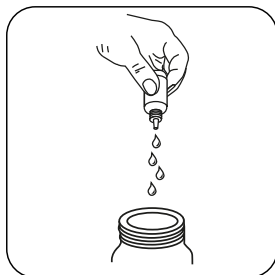
Add **1** measuring scoop(s) **Hardness Calcium Indicator CH1P**.



Swirl to mix.

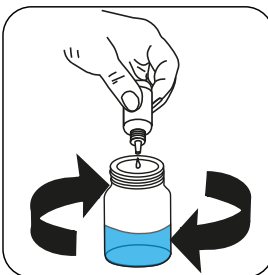


The sample will turn **wine red**.



Attention! Record the number of drops that will be added.

Note: Make sure to swirl the jar after adding each drop!



Add **Hardness LR Titrant TH3** or **Hardness HR Titrant TH4** drop by drop to the sample until colouration turns from **wine red** to **blue**.

Calculate test result: Total Hardness (as CaCO₃) mg/L = Number of drops x factor (see table)

Hardness, total**561700280****5 - 600 mg/L CaCO₃**

EN

Material

Reagents	Packaging Unit	Part Number
Hardness Total Buffer TH2	65 mL	56L016065
Hardness Total Indicator TH1P	Powder / 40 g	56P028340
Hardness LR Titrant TH3	65 mL	56L016265
Hardness HR Titrant TH4	65 mL	56L014565

The following accessories are required.

Accessories	Packaging Unit	Part Number
Syringe, plastic, 20 mL	1 Pieces	56A006501
Titration jar with cap, plastic, 60 mL	1 Pieces	56A006701

Remarks

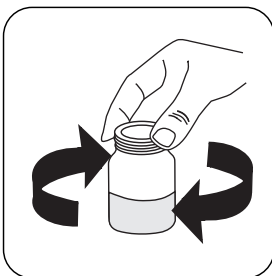
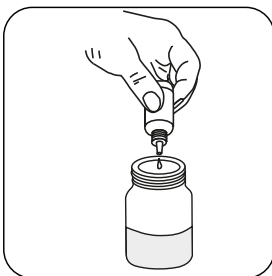
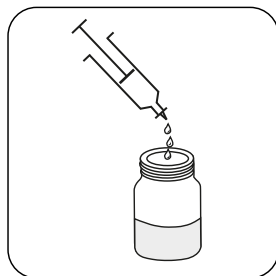
1. Colours may vary depending on sample and test conditions.
2. More than 1 ppm copper in the sample will prevent the pure blue endpoint from occurring.
3. To remove copper interference, add 1 drop of Iron Reagent FE6 before the addition of Hardness Total Buffer TH2. Iron Reagent FE6 is not supplied as standard in the hardness test pack, but can be purchased separately. (56L006365)

Sampling

Select the sample volume from the table according to the expected measuring range and read off the factor to calculate the result.

Expected Range	Titrant used	Sample Size	Factor
5-15 mg/L CaCO ₃	Hardness LR Titrant TH3	40 mL	0.5
10-30 mg/L CaCO ₃	Hardness LR Titrant TH3	20 mL	1
20-60 mg/L CaCO ₃	Hardness LR Titrant TH3	10 mL	2
50-150 mg/L CaCO ₃	Hardness HR Titrant TH4	40 mL	5
100-300 mg/L CaCO ₃	Hardness HR Titrant TH4	20 mL	10
200-600 mg/L CaCO ₃	Hardness HR Titrant TH4	10 mL	20

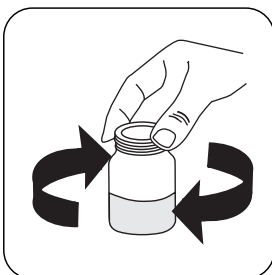
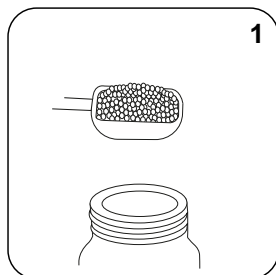
EN



Attention! Select the appropriate sample volume according to the instructions in the chapter Sampling.

Add **4 drops of Hardness Total Buffer TH2** per **10 mL** of sample.

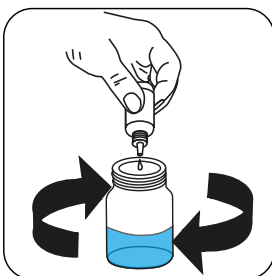
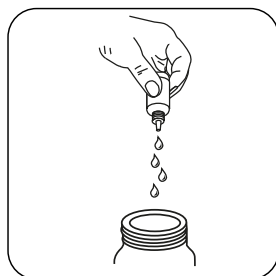
Swirl to mix.



Add **1 measuring scoop(s) Hardness Total Indicator TH1P**.

Swirl to mix.

The sample will turn **wine red**.



Attention! Record the number of drops that will be added.

Note: Make sure to swirl the jar after adding each drop!

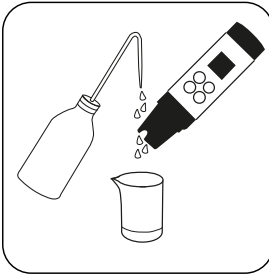
Add **Hardness LR Titrant TH3 or Hardness HR Titrant TH4** drop by drop to the sample until colouration turns from **wine red** to **blue**.

Calculate test result: Total Hardness (as CaCO₃) mg/L = Number of drops x factor (see table)

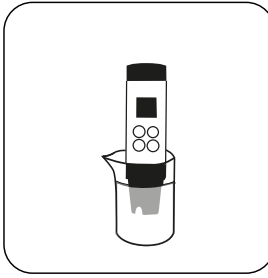
Conductivity**SD / Con****0 - 20 mS/cm****Remarks**

EN

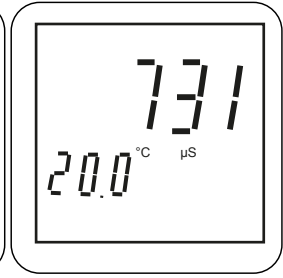
1. The description of the calibration and the device settings are described in the detailed operating instructions. Detailed operating instructions are enclosed with the device.



Rinse the electrode with distilled or deionised water and carefully wipe with a paper towel.



Hold the tester without protective cap in the sample water to be measured so that the electrode and temperature probe is immersed in the sample water not deeper than the seal ring.



The measurement result is displayed.

EN

pH

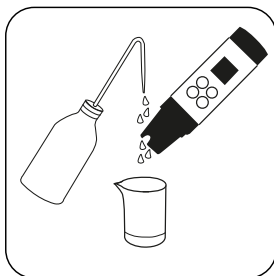
SD / pH

0 - 14

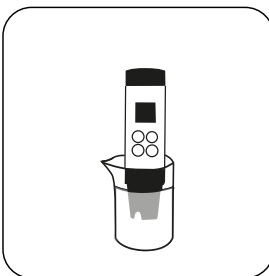
EN

Remarks

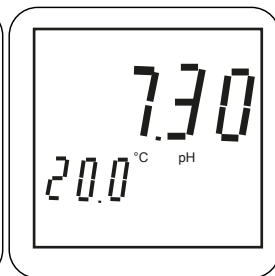
1. The description of the calibration, the preparation of the buffer solutions and the device settings are described in the detailed operating instructions. Detailed operating instructions are enclosed with the device.



Rinse the electrode with distilled or deionised water and carefully wipe with a paper towel.



Hold the tester without protective cap in the sample water to be measured so that the electrode and temperature probe is immersed in the sample water not deeper than the seal ring.



The measurement result is displayed.

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Technical changes without notice
Printed in Germany 03/24

No.: 561701100

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