Dinax® residual hardness tester

one component, quick test based on drop count

Number of measurements: 300 (0,1 dGH°)*

Sensitivity:

1.0 mg / l CaO (0.1 dGH°) in 5 ml sample
1 drop = 0.03 dGH °

Measuring range:

0-0,3 dGH °

Used area:

Purified waters, industrial waters, boiling water, cooling waters, etc., quick and easy definition of the remaining hardness.

Principle of the method:

Complexometric titration in the presence of Eryochrome Black and Methyl Orange Indicators.
One drop of the metering solution is 0.03 dGH °, 3 drops of 0.1 dGH °, i.e. 1.0 mg /l CaO residual hardness in 5 ml of water sample.
The method doesn't require any equipment, the test can be made directly at the sampling place, providing the result simple by drop counting.
The measuring solution is a permanent composition, it is not degradable.

Content of the kit:

1 plastic drip bottle with metering solution
1 plastic measuring bowl
1 user manual

Sample Preparation:

Mix the water sample well before removing the sample. Check that the reagent and the reagent
Ambient temperature is around 25°C. At lower temperatures, the metering solution may stagnate. In this case, by heating the metering solution to 25°C can be re-use.

Measurement of the residual hardness:

If the determination of the limit of 0.1 dGH ° is important only, perform the measurement as described in NOTE 2.

To determine the exact residual hardness, follow the measurement instructions below:

- Flush the measuring vessel with the water sample to be examined.
- Fill the measuring vessel with the water to be examined till the 5 ml mark.
- Add a drop of water solution to the water sample and mix thoroughly.
- If the sample color is **green**, the residual hardness of the sample is below 0.03 dGH °.
  If the water sample color is **light red**, add more metering solution dropwise to the water sample while mixing it with the circular motion of the measuring vessel.

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Calculate the drops for the water sample. Continue the titration until the color of the sample is green.

- A droplet of 5 ml of the water sample, multiplied by 0.03, gives the residual hardness of the water at German hardness (1 drop = 0.03 dGH °).

Notes:

1. The test is suitable for measuring the range from 0 to 0.3 dGH °, and for a range of 0.03 to 0.3 dGH °.
2. If only the examination of the limit of 0.1 dGH ° is important, add 3 drops of metering solution to the measured 5 ml water sample and mix well.

   The remaining hardness

   Is below 0.1 dGH ° when the water sample is green;
   0.1 dGH ° when the water sample is purple-red;
   0.1 dGH ° if the water sample color is red.
3. Make the measurement on a white paper so that the color tapping is more noticeable.
4. The viscosity of the metering solution, and thus the size of droplets, also depends on the temperature. Therefore the measurement is approx. at a temperature of 25 ° C.

Warnings:

1. After completing the measurement, tighten the cap of the drip pan and tighten the flask carefully.
2. Protect the dropper from contamination.
3. After use, thoroughly wash the measuring pan with distilled water and dry it.
4. Store the kit in its original packaging at room temperature. Use up to the date shown on the box.

Hazards (H) and Precautions (P):

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H371 May damage organs.
P260 Do not inhale vapors.
P264 After use, wash hands thoroughly.
P302 + P352 if on skin:
Wash with plenty of soap and water.
P305 + P351 + P338 if in eyes:
Rinse cautiously with water for several minutes. Removal of contact lenses, if applicable, can be easily solved. Continue rinse.
P337 + P313 If eye irritation persists:
seek medical advice.
P308 + P311
In the event of exposure or if in doubt: seek medical attention.

Safety requirements:

Follow the instructions in this manual.
Do not pour the reagent into the drain.
Protect the measuring solution from high temperature, radiant heat.

*dGH ° - degree of German Hardness