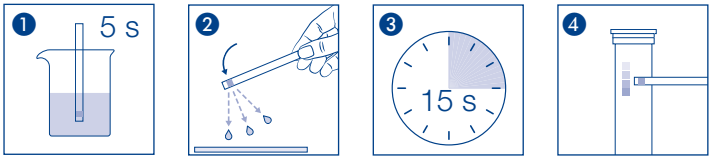
AQUADUR® Sensitive



Description:

AQUADUR® Sensitive are test strips for the semiquantitative analysis of low water hardness, after amongst other things the softening of water. Water hardness means the content of calcium and magnesium ions in the water, which is expressed in ppm (mg/L) calcium carbonate ($CaCO_3$), °d (degree German hardness) or °e (degree English hardness) (conversion factor: 1 °d = 17.8 ppm $CaCO_3$ = 1.25 °e).

Pack content:

1 aluminum container with 50 test strips

Measuring range:

5–20 ppm $CaCO_3$ (0.3–1.1 °d or 0.375–1.375 e)

Color gradation:

0 · 5 · 10 · 20 ppm $CaCO_3$ (0 · 0.3 · 0.6 · 1.1 °d or 0 · 0.375 · 0.75 · 1.35 °e)

Reaction principle:

Determining the water hardness is based on the complexing reaction between calcium and magnesium ions and ethylenediaminetetraacetic acid (EDTA) disodium salt.

General indications:

Remove only as many test strips as are required. Close the container immediately after removing a strip. Do not touch the test field.

Instructions for use:

1. Dip the test strip into the test solution for 5 seconds.
2. Gently shake off excess liquid.
3. Wait 15 s.
4. Compare test field with the color scale. Take the value which matches closest with the discolored test field (reading accuracy: +/- ½ colored field of the scale).
   Color changes after reaction time must not be considered for the evaluation of the test results.

Quality Control:

To check the correct functioning of the test strips, use untreated tap water with a hardness degree of > 1 °d / > 1.25 °e (17.8 ppm $CaCO_3$). The exact quantitative analysis may be carried out with a titration test kit (e.g. VISOCOLOR® HE total hardness H2, REF 915002). To carry out the positive control, create a test solution of 0.6 °d / 0.75 °e (10 ppm $CaCO_3$) by thinning tap water with totally softened water. Then use the test strip to measure. If the control solution produces a negative result even after repeating the process, then the remaining unused test strips must be discarded. Even during a negative control (inserting a test strip into totally softened water), no positive discoloration may occur. Possible reasons for both faults may be that the expiry date has been exceeded, the test strip container has been left open for too long or the test strips have been stored incorrectly.

Interferences:

The test will not be adversely affected by the presence of up to 50 mg/L chlorine or 500 mg/L hydrogen peroxide.
AQUADUR® Sensitive may be used to determine the hardness of drinking water. In other solutions, however, inaccurate results may occur.
Water that is to be tested should be at room temperature.

Additional information:

The test strip container stopper contains a non-toxic drying agent. If swallowed, drink plenty of water.

Disposal:

Information regarding disposal can be found in the safety data sheet. You can download the SDS from ***www.mn-net.com/SDS***.

Storage:

Avoid exposing the strips to sunlight and moisture. Keep container cool and dry (storage temperature 4–30 °C).
If correctly stored, the test strips may be used until the use-by-date printed on the packaging.

CTL SCIENTIFIC SUPPLY CORP. 1016-3 Grand Boulevard, Deer Park, NY 11729
Tel: **631-242-4249**
Web: **www.ctlscientific.com**

Manufacturer: **Macherey-Nagel GMbH & CO. KG**

Rev: 2025-03