

Description:

Aquadur[®] Sensitive are test strips for the semi-quantitative analysis of low water hardness, after amongst other things the softening of water that is used for example to feed the reverse osmosis unit when preparing dialysis liquid. Water hardness means the content of calcium and magnesium ions in the water, which is expressed in ppm (mg/l) calcium carbonate (CaCO₃), °d (degree German hardness) or °e (degree English hardness) (conversion factor: 1 °d = 17.8 ppm CaCO₃ = 1.25 °e).

Measuring range: 5-20 ppm CaCO₃ (0.3 – 1.1 °d or 0.375 – 1.375 °e)

Colour gradation: 0-5-10-20 ppm CaCO₃ (0-0.3-0.6-1.1 °d or 0-0.375-0.75-1.375 °e)

Pack content:

100 test strips

Reaction principle:

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

Instructions for use:

Only remove the required number of test strips from the container and immediately close the container again securely. Do not touch the test field with your fingers. Insert the test strip into the test solution for 5 seconds. *Gently* shake off any excess liquid and compare with the colour scale after 15 seconds. Take the value which matches closest with the discoloured test field (reading accuracy: +/- 2 ppm).

The reaction colour of the test field may change after the value has been taken. It is therefore crucial to evaluate the discolouration within the prescribed time scale in order to achieve a correct result.

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 CaCO₃). The exact quantitative analysis may be carried out with a titration test kit (e.g. VISOCOLOR[®] HE total hardness H2, Cat. No. 915 002). To carry out the positive control, create a test solution of 0.6 °d / 0.75 °e (10 ppm CaCO₃) 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 discolouration 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.

Storage and Shelf-Life:

Keep test strips dry and away from direct sunlight. Store test strip container in a cool and dry place between 15 °C and 30 °C.

If stored correctly, the test strips may be used until the expiry date shown.

Additional information:

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

Disposal: Dispose of used test strips as domestic waste.

Explanation of symbols:

LOT

Lot number



Expiry



Store at

REF

Catalogue number



Please read package insert



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