

CDR Kits codes: 300695 – 300700

DEFINITION AND SCOPE OF THE TEST

Calcium analysis allows, in a simple and fast way, to quantify the concentration of the analyte in the water used in the brewing process and to control this parameter in the wort during the production process. Calcium reacts with the malt phosphates causing the decrease in pH, promotes enzymatic activity, contributes to the coagulation of proteins, the flocculation of yeast and the precipitation of oxalates.

TEST PRINCIPLE

Calcium reacts with a chromogen and generates a colored complex, whose absorbance measured at 580 nm is proportional to the amount of the analyte present in the water sample.

COMPOSITION OF THE KIT AND REAGENTS

Reagent test kit *300700, suitable for 100 tests, contains: 10 x reagent test kit *300695.

Reagent test kit *300695, suitable for 10 tests, contains:

- R1: package with 10 pre-filled cuvettes with 1 mL of buffer
- R2: bottle with 3,5 mL of chromogenic solution.

For information on the hazards associated with reagents, consult the product's safety data sheet.

Storage: reagents are stable up to the expiry date.

Store at room temperature.

Shelf-life: at least 12 months.

PROCESSING – SAMPLE VOLUME – MEASURING RANGE

Use on beer, wort and water. In case of water, use sample as it is. Beer sample has to be degassed (we suggest the use of an ultrasonic bath), before taking it. For a higher analysis accuracy, in case of wort it is recommended to centrifuge the sample.

Sample	Test	Measuring range (ppm)	Sample volume	Resolution (ppm)	Repeatability (ppm)
WATER	Calcium	20 - 250	25 µL	1	4
BEER	Calcium	20 - 150	25 µL	1	5

CALIBRATION CURVE

The calibration curve was constructed using standard calcium solutions. The trend of the curve confirmed an excellent linearity of the system over the whole measuring range.

