

pH TESTING

A pH meter tests the acidity (low pH) or alkalinity (high pH) of a solution. During the brewing process there are many times when the correct pH is crucial for maintaining a consistent and quality product.

8100 PLUS pH METER KIT

Resolution: 0.01pH Accuracy: ± 0.02 pH

Accuracy: ★★★★★

This pH meter kit includes a waterproof and accurate pH meter with pH and temperature probes. With such an accurate instrument the readings should be compensated for temperature – this can be done automatically or manually using this meter. The kit also includes 700 pH and 4.01 pH buffer solutions for calibration and a convenient carrying case.

PRODUCT CODE: B0620/PPK

PRICE: £203.00



WHEN TO MEASURE YOUR pH MASHING:

Look for a pH of 5.2-5.6 in order to get the best extract yield. If the pH is too high you will end up with a less fermentable wort.

WORT BOIL:

A pH of around 5.0-5.2 will help extract the best flavour from your hops. A lower pH here will give you a paler wort, and a higher pH may extract some unpleasant flavours.

FERMENTATION:

Your finished beer should have a pH of around 3.7-4.4 depending on the style of beer (sour beers may have a significantly lower pH). Drier beers tend to have a lower pH, and if the pH is too high the beer can be more prone to infection by micro-organisms.

CLEANING:

Check the pH after rinsing to ensure you have flushed out any caustic or acid cleaning solutions.

REPLACEMENT PROBES FOR pH METER KIT

Replacement pH probes are available for the kit and the probes should be changed regularly to ensure accurate readings. Delicate pH electrodes have a limited life span since the solution in the glass reservoir bulb electrode is gradually used up and the membrane on the surface of the electrode can become clogged. If looked after properly they can last for around a year of normal use (around 365 measurements), though if they are left dirty or to dry out this lifespan will be significantly reduced. Always clean and store carefully to keep them in good working order.

| Product Code | Type | Price |
|--------------|----------|--------|
| B0620/PH | pH probe | £48.00 |

PROTECTIVE CASE WITH STAND AND MAGNET

Rubber case with stand and magnet so that you can place the pH meter on a flat surface or attach it to a steel surface.

PRODUCT CODE: B0375/SB

PRICE: £14.00





PAL PLUS TESTER

Resolution: 0.1pH Accuracy: $\pm 0.2\text{pH}$ Accuracy: ★★★★★

This is a robust pen-type pH tester with a clear, easy to read display. With a pH meter of this accuracy temperature compensation is not needed, and it can be calibrated at the touch of a button in pH 7.0 buffer solution. Always rinse the electrode and replace the cap immediately after use to maintain the life of the meter.

PRODUCT CODE: B0605

PRICE: £66.00



BUFFER SOLUTIONS

Use these for calibrating your pH meter before each use. The Pal Plus tester just needs a 7.00pH solution. The 8100 Plus pH meter needs a second solution as well – for the best accuracy use 4.01 pH if you are measuring acidic liquids, or 10.01 pH if you are measuring alkaline liquids.

| Product Code | Size | pH | Price |
|--------------|------|-------|--------|
| B0600/S04 | 90ml | 4.01 | £10.00 |
| B0600/S07 | 90ml | 7.00 | £10.00 |
| B0600/S10 | 90ml | 10.01 | £10.00 |



BUFFER CAPSULES

These capsules can be added to 100ml of distilled water to make up solutions suitable for calibrating pH meters.

| Product Code | Size | pH | Price |
|--------------|------------|------|--------|
| B0600/C4 | Pack of 10 | 4.0 | £21.00 |
| B0600/C7 | Pack of 10 | 7.0 | £21.00 |
| B0600/C10 | Pack of 10 | 10.0 | £21.00 |

CLEANING AND STORAGE SOLUTIONS

Use these solutions to keep your pH electrodes in good condition to ensure a long life and accurate readings.

| Product Code | Size | Type | Price |
|--------------|-------|-------------------|--------|
| B0600/CL | 500ml | Cleaning Solution | £33.50 |
| B0600/ST | 500ml | Storage Solution | £33.50 |

HOW TO USE YOUR pH METER

Rinse off any storage solution before using your pH meter and rinse the electrode again after each test.

Calibrate using a pH 7.0 buffer solution. More accurate pH meters will need a second calibration solution, so use one close to the pH you will be measuring. A pH 4.0 solution will be best for most brewery tests.

To ensure accurate readings, you will have to calibrate your pH meter on a regular basis. It should be calibrated after taking out of storage, and if you are taking many measurements it may be worth recalibrating after every few tests.

CARING FOR YOUR pH ELECTRODE

If you don't look after your pH meter carefully, then you will not get correct readings, or it will fail to calibrate.

After every use you should clean the pH electrode by rinsing it under a running tap, or if it is dirty by soaking in a cleaning solution for at least half an hour. If it is very dirty, then leave it in the solution overnight.

After cleaning it should be soaked in pH4 buffer solution or storage solution, and never allowed to dry out.

