

Smart Notes

Q A

Q: How do I maintain my pH electrode so that it is fast and reliable in mash, wort, and beer samples?

A: Proper maintenance.

Proteins, enzymes, tannins, yeast cells, and malt solids have the potential to coat a pH bulb sensor, clog a junction, foster bacterial growth, and/or contaminate the electrode fill solution. Just like an automobile, a pH electrode requires maintenance, which is an important part of your quality assurance program.

Testing pH in mash, wort, and beer can lead to a great brew, but these types of samples can be tough on a pH electrode. If you want your pH electrode to remain fast, accurate, and reliable, it is important to maintain it properly according to the user manual. The recommended care that you should perform on a regular basis, including rinsing, storing, refilling, and cleaning, is on the following page. Be your own mechanic and keep your pH electrode running smoothly.



Daily

- Store the electrode every night and between measurements in the appropriate storage solution
- Remove it from storage and rinse well with reagent grade water before use, between every measurement, and after use
- Top up refillable electrodes every day before use

Biweekly or monthly

- Discard old pH electrode storage solution, wash out the storage bottle/container, and fill with fresh storage solution to prevent contamination and mold
- Drain and refill refillable electrodes with fresh fill solution, then soak the electrode overnight in storage solution

As needed or monthly

- Clean the pH electrode when response is slow or calibration or verification does not meet criteria after corrective actions
- Use a protein-removing cleaner (follow instructions)
- Try a general cleaner, if needed

Summary

Proper maintenance is the key to keeping your pH electrodes at their highest working performance.



Recommended Thermo Scientific™ pH electrode maintenance products

Product	Recommended use	Cat. No.
Orion ROSS Sure-Flow pH Electrode	Measure pH, with nonclogging, easy-flush junction; use with an ATC probe for temperature compensation	8172BNWP
Orion ROSS Ultra Refillable pH/ATC Triode Combination Electrode	Measure pH and temperature with one electrode; standard with Orion Triode meter kits	8157BNUMD
Orion ROSS pH Electrode Storage Solution	Store pH electrode	810001
Orion pH Electrode Cleaning Solution A	Protein-removing cleaning solution	900021-WA
Orion pH Electrode Cleaning Solution C	General-use cleaning solution	900023

Find out more at thermofisher.com/electrochemistry