

R-CARDS

ROTH R-CARDS are a rapid microbiological testing method, which (like petrifilm) doesn't require a lab or extensive scientific knowledge or equipment. They're fairly affordable and accessible, allowing citizen scientists to detect and count microorganisms in a water sample, including *E. coli* and intestinal enterococci.

They provide a snapshot of specific bacteria levels and results are comparably accurate to more traditional techniques, though it's advisable to pair or validate with more accredited lab-based techniques if data is being used in an official capacity.

HOW DOES IT WORK?

The cards are pre-prepared with a gel medium, which you add a water sample to.

1. **Prepare** – Label your R-CARD™ with date and location. Wear gloves.
2. **Collect** – Rinse the sample cup 3 times, submerge 15 cm below water. Use this to fill a syringe to the 1ml mark.
3. **Load** – Lift the film, dispense the water onto the card, and press the film down to seal it in
4. **Incubate** – Place in incubator at 35°C for ~24 hours.
5. **Read** – Count colored dots:
 - Green/turquoise = *E. coli*
 - Pink/red = coliforms
 - Blue = enterococci

TRIED AND TESTED

R-CARDS are widely used by campaigners and educators, researchers and scientists.

Water Rangers, for example, are carrying out [E.coli sampling with R-Cards™](#). They have a fantastic guide on how to take and process a sample using this equipment: [E.coli sampling with R-Cards™ - Water Rangers](#)

WHERE TO BUY

R-CARDS are produced by Roth Bioscience. You can buy them in bulk here: [R-CARD® Rapid Test Method for Bacteria and Microorganisms – Roth Biosciences, LLC](#)