

A rambling review of the Campagnolo Thermo water bottle

Readers should note that the lab tests in this article were done back in March. Don't worry – you haven't slept through any 40-degree days yet.

Bicycle manufacturers would reinvent the wheel to make a sale if they could. In fact while no-one has been bold enough to market an elliptical option just yet, there have been plenty of innovations in configuration and construction over the years. While many of these changes like deep-dish rims and inventive lacing patterns have provided tangible benefits, that is not always the case in the fruity philosophy of encouraging an annual upgrade to everything that dominates modern design and marketing.

It's hard to resist getting sucked in by the bling or geek factors or the possibility of a few seconds shaved off your PB, but luckily for me nothing disposes of income as effectively as having a family, and my cycling budget these days rarely stretches beyond the essentials. I had my mid-life crisis early and my family late so fortunately my dream bike was safely in the shed a long time ago. At the time the budget was "almost unlimited", though I did balk at the gobsmackingly beautiful Merlin Cielo (<https://tinyurl.com/vvjco45>), more because of uncertainty over the backyard retailer located in Queensland than the price. Oh no now I remember, it was also the price because it would have made no sense to get it without the then thoroughly exotic carbon Campagnolo Hyperon wheels available as a \$3000 upgrade option.

Other things guided my choices, and in the end apart from the pedals and computer it was an all-Italian build. The full Record groupset led me to consider the somewhat ludicrous matching Record bidons and bottle cages as a finishing touch. The water bottles were plain silver-grey plastic affairs with black lids and a subtle wraparound expression of the Campagnolo logo marking their heritage. The cages were another story, compact wonders of the art of carbon fibre warp and weft, weighing in at just seven grams. Apparently you can beat that these days by a couple of grams or more (<https://tinyurl.com/v3azpy6>) but at the time it was an achievement that commanded a \$200 price tag. Perhaps more tellingly in terms of durability the current Campagnolo Record offering weighs eighteen grams.

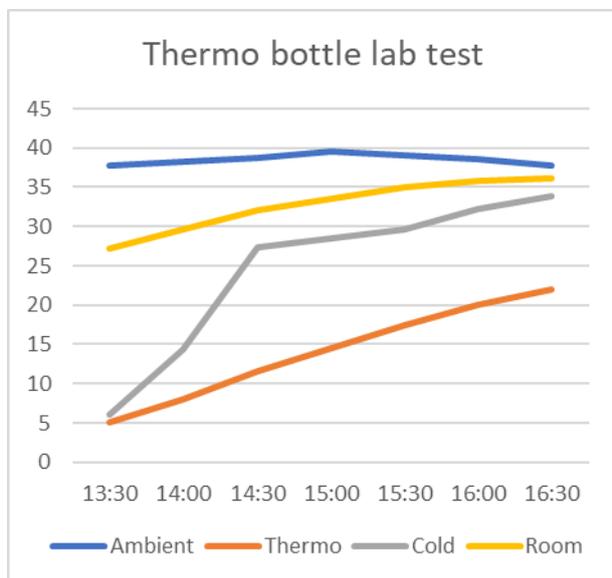
I was giddy at the prospect but due to an error by the bike shop I thought that was the price for a pair and added them to my order. Thankfully the shop stood by their mistake, which was after all a mere blip on the total cost. Over several years first one and then eventually the other cage failed at the weakest point under the pressure of repeated insertions, but during that time I grew fonder of the mundane bidons that did the damage. I liked them so much I added a pair of larger 750 ml bottles to my collection for longer rides, and kept all four long after they showed signs of age that might have justified replacement. They were still doing service when I finally gave in and replaced the cages with a pretty pair of stainless steel Arundel's that should last a lifetime at the hefty weight of 53 grams.

A lot of water bottles have gone by the road side in that time in the form of various freebies or emergency purchases or spares for other bikes, so when the time came to replace the old faithfuls I could have dusted off on old barely used souvenir or two, but I decided that in an economical nod to the original brief I would honour the dream bike by having a look at what Campagnolo had to offer these days. I was actually hoping I'd just be able to buy another set of what I knew and loved, but sadly even Tullio's boys in Vicenza have succumbed to the mantra of the new.

My immediate reaction was disappointment. My sleek grey ugly ducklings had been usurped by a squared-up design that could have come from any brand. Despite that I couldn't think of a more attractive alternative and so placed an order for a pair of standard 750 ml bottles and one 500 ml "Thermo" insulated bottle. Anyone who has ridden in the heat of the day will understand that the latter choice was prompted by the unique pleasure of swigging a mouthful of blood-hot water.

The bottles themselves have a few features that differentiate them from my old classics. Firstly, the pull-to-open nipple has been replaced by a self-closing mouthpiece with "Membrane Technology". This means you have to remember to squeeze the bottle to get a drink. Not much different from the old ways and easy to get used to. The cap also has a lock that prevents any water from escaping. This is probably useful if you transport your bike a lot with the bottles in situ, or allow the bottles to roll around in your car, but it's a feature I could have done without. The membrane stops any water coming out while you're riding so for me the locking cap is just an extra bit of unnecessary fiddliness. It's slightly annoying to have to remember not to accidentally lock the lid after filling the bottle, because you can't really undo it one-handed on the road. Also, the swivelling part takes up most of the cap, so there is not much left to grip when tightening the lid. Getting the lid on tight turned out to be important to prevent leaks when taking a drink. So a big thumbs up for the membrane but a rethink required on the locking cap.

The previous paragraph applies to the standard bottle and the insulated Thermo bottle. So much for reinventing the wheel, I wanted to know if I could get a cool drink on a hot day. I decided to start with a "lab" test. I refrigerated the insulated bottle and one of the standard bottles, and filled the other standard bottle with room temperature water. Then I put the three of them outside in the shade on a warm day and took their temperature with a digital cooking thermometer every half hour.



The results are compelling and not inconsistent with the graph supplied with the product. The latter showed a rise from one degree to fourteen over four hours with an ambient temperature of twenty degrees against a rise from one degree to twenty-one for a standard bottle. (I think they need to X-Ray that standard bottle for a power source as I have no other explanation for how it got above the ambient temperature.) Some comments on my methodology and results:

1. The standard bottles are 50% bigger so have a lower volume-to-surface area ratio and would be expected to heat up more slowly compared to a similar smaller bottle. However, this can be disregarded because the smaller size of the Thermo bottle is due to volume taken up by insulation, so for practical purposes the comparison is fair.
2. The values at 15:00 are interpolated – I was off getting the girls from school.
3. I have no idea why the "cold" curve has a kink in it. The most likely explanation is that I misread or misrecorded the temperature for that bottle at 14:30.

According to the Campagnolo blurb "a beverage is considered to be cool up to 14°C". Given that and my own preconceptions I was surprised to find that after three hours the 33.8°C "cold" water was

not only drinkable but surprisingly okay and the 36.3°C “room temperature” water was drinkable. But I might have felt differently if I hadn’t been in air conditioning while the bottles warmed up, and the 22°C water from the Thermo bottle was definitely still in the refreshing range.

A lab test is all very well but how would the insulated bottle perform in a road test? A more dedicated correspondent would have taken the thermometer along and diligently stopped to record the temperature every half hour. I’m afraid all I could manage was some subjective testing. We were still in a summer weather pattern when I did these tests, so a couple of late starts on Saturdays gave me a good chance to test the bottles out in the field. I had thought that the insulation would help protect the Thermo bottle better against the “wind-heat” factor on a ride, but if anything I found the opposite to be true. While the insulated water was definitely much cooler when I switched to it mid-ride, it wasn’t as cold as I expected it to be.

In conclusion there’s no doubt an insulated bottle can preserve a refreshing draught of water for you a good way into a hot ride. I have only tried the Campagnolo version but I would expect similar performance from other brands. The big question though is whether the cooler water is worth the penalty of having 250 ml less of the precious stuff for each standard bottle substituted. That doubt led me to take the two standard bottles with me out to Corroboree Rock the day before finishing this piece. I had started reasonably early and it wasn’t particularly hot, so my last gulps of water were still palatable and in that instance I was certainly happy I hadn’t run out a quarter of a litre earlier. In a great finale though the water in the Thermo bottle left behind in my now warm shed was a refreshing treat when I got home, especially as the front door lock was jammed and it would be another 15 minutes before I could inside to the fridge.