

## Giro Aerohead MIPS

December 6, 2016

Oliver Bridgewood

The Giro Aerohead has been worn by some of the worlds fastest time trialists. Is it worth the high price tag though?



Pros:

Overall rating:

SCORE

Giro Aerohead MIPS

Very aero

Rear triangle needs covering

Cons:

Expensive

One of the fastest helmets available Great quality

Comfortable

Giro

The Giro Aerohead has been worn by Rohan Dennis, while riding the fastest ever

Manufacturer:

Tour de France time trial and more recently by Marcin Bialoblocki, while setting the

fairly unconventional design that looks straight out of Star Wars.

outrageous 16-35 National 10 mile TT record. With its sweeping visor it features a



how they feel.

In addition to this, I tested the helmets aerodynamics by riding around a velodrome. Because there is no one size fits all, we had three different test riders and the results were averaged. The helmets were all ridden around a velodrome at the individual riders threshold power on TT bikes in a race position.

Power output, air temperature, air pressure, and distance travelled were recorded

helmets on a variety of training rides and time trials to assess their ergonomics and

Kask Bambino, Bell Javelin, Lazer Wasp and Carnac Kronus. I have worn these

throughout the testing. Tyre pressure was kept at 100psi and the rider+bike+helmet system weight was recorded before each run. The only thing that was changed, was the helmet used.

This data was combined with the .fit files and put in to MatLab to calculate a CdA

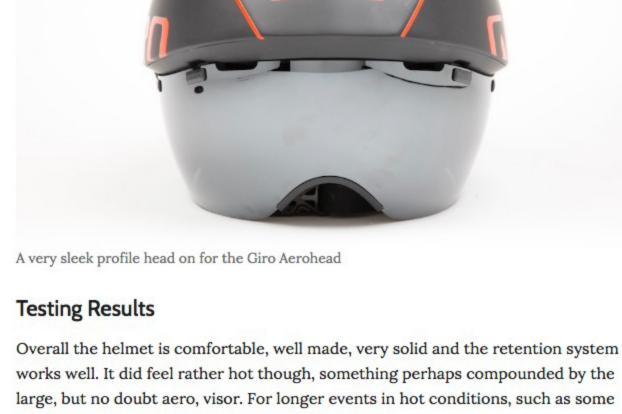
value (drag coefficient) for each helmet. The data has been presented as the aero watts at 40kph (this is the theoretical power required to travel at 40kph excluding

rolling resistance) and the total system CdA (drag coefficient). As a baseline we tested the Giro Synthe aero road helmet which gave the following values:

Aero Watts at 40kph: 217W

Average system CdA: 0.259

THE C



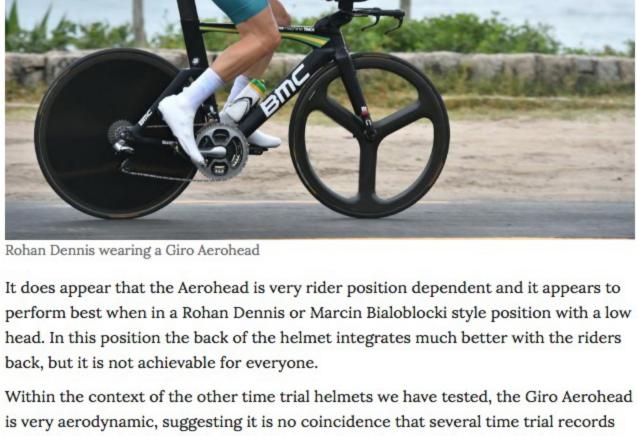
faster.

Ironman triathlons, you may want to factor this in.

Giro does make a more expensive, lighter, non-vented 'Ultimate' version for £499. The front vents are filled and the rear triangle of the helmet is covered by a lycra flap that fits flush against the back of your head. To get an idea of how this might

perform we also tried the helmet with the vents and rear triangle taped up, to see if it was faster. Taped up, we found the Giro Aerohead to be in the region of 1-2 Watts





have been broken by riders wearing it.

The helmet was the fastest on test on one of our three riders, but slighter slower

than the Bell Javelin on the other two. It should be pointed out that difference between the Bell Javelin and Giro Aerohead was typically a couple of watts.

Conversely, the Giro Aerohead was on average, 10 watts faster than the Kask Bambino at 40kph on our three riders. Overall, the helmet is very good and I would

For shorter events you can tape the vents to save a couple of watts and for longer events you have vents. The more expensive Giro Aerohead Ultimate doesn't have any vents meaning you won't have this option.

be inclined to buy this version over the much more expensive version.

Verdict

How well a time trial helmet performs can be dependent on the position and shape of the athlete using it. However, the Giro Aerohead was consistenly fast on all three of the riders we tried it on. It's expensive, but we calculate the Giro Aerohead to be around 17 watts faster at 40kph than Giro Synthe