

ZIPP FIRECREST 404 CARBON CLINCHER

By Jay Prasuhn


Sometimes it pays to not be first. While everyone was in a rush to bring carbon clinchers to the market (many failing along the way with rim heat dissipation issues), Zipp quietly worked for two years. When the Indianapolis-based company debuted its Firecrest 404 carbon clincher in the spring of 2010, it was something significantly more than just another wheel.

The big story with the 1,557-gram Firecrest 404 carbon clincher? Rim shape. Zipp widened the sidewalls on the Firecrest, and our digital calipers measured them at an advertised 25.5 mm. The rim continues to flare out to as wide as 27.5 mm before sweeping back in to a uniquely blunted rim apex.

Zipp's testing showed that both widening the rim's brake track and changing the sidewall's curvature profile improved ride quality (the wider rim shape moves the center of pressure closer to the rider, making for a wheel that's easier to handle) and stiffness. It also showed better drag numbers in the tunnel, with a tire's sidewall at the leading edge traveling a more linear path to the brake surface instead of bowing in to meet the bead hook.

Zipp says its new carbon clincher not only beats all other in-class carbon clinchers aerodynamically, it even beats its own tubulars. Zipp provided LAVA with some interesting tunnel data: its old 404 tubular wheel saves 71 seconds at 300 watts over 40K at a 10-degree yaw versus a baseline Mavic Ksyrium. The 404 Firecrest? It saved 73 seconds.

And Zipp's counter to the massive heat buildup on carbon clincher brake surfaces during heavy braking is the integration of a special heat-resistant resin based on materials used in Formula 1 brakes. You'll have peace of mind, knowing that you can race them hard and brake hard—without any issues such as tire-to-rim displacement.

You may or may not notice the extra speed, but you'll certainly notice the plush ride the wider rim yields. Not to mention the cool confidence in knowing that a flat tire on this clincher is an easy fix for anyone. It's no surprise that Zipp debuted this new technology on its flagship 404 model, with the wheelset pricing at \$2,700. But if history is any indicator, we can probably expect to see Firecrest applied to Zipp's other wheels in due time. 

SAMMY TILLERY