

TOUR STAR bike of the week



Cervelo SLC-SL

TEAM CSC

CERVELO has managed to shave 200g from the Carbon Soloist to make the SLC-SL. Key to the weight removal has been a new carbon lay-up made possible by a computer program Cervelo has created. Previously Finite Element Analysis (FEA) software would take up to three days to analyse a frame's construction, but now Cervelo's new program can get through over 100 iterations in a day. The resulting knowledge allows a reduction in weight and strategic use of a very high modulus, expensive yet brittle carbon to be applied to key areas. This carbon has to be used with great care but the frame still passes the same tests for stiffness and impact resistance.

Cervelo has learned that carbon lay-up isn't especially intuitive. In fact, it tried several avenues that proved to be a massive waste of time. After some experience, though, it has found it's much easier to predict what will be good and what won't.

With a frame weight of just 970g for the 56cm version, weight can be added elsewhere to bring greater benefits, for instance in the aero department. So whereas before the CSC team might use the Zipp Z2 wheelset to get a bike down to the UCI limit, they can now get away with the heavier Zipp 404 (deeper section rim) for the same overall bike weight but with much improved aerodynamics.

Jens Voigt tested an early prototype version of the Soloist Carbon in the 2005 Tour de Suisse and then rode one to take the yellow jersey in the long stage nine break of that year's Tour de France. The SLC-SL represents another step on from there

NEXT WEEK

The Discovery Channel team's Trek Madone SSL 6.9

Above: Dave Zabriskie with his SLC-SL

Right: Details of Frank Schleck's team bike



EXCLUSIVE