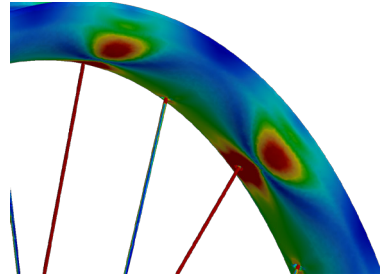


LIGHT WEIGHT

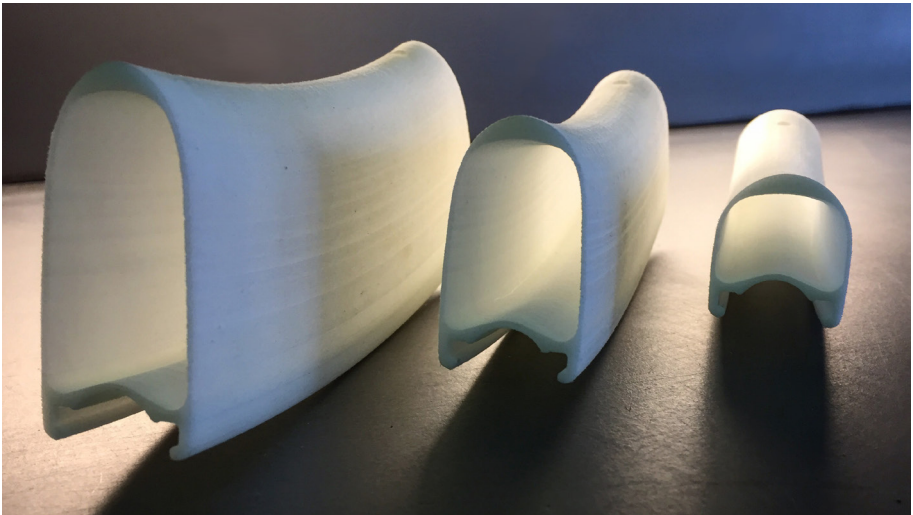
Finite Element Analysis

There are different ways to find the perfect shape for an aerodynamically optimized rim. While CFD played an important role during the development process of our R series wheelsets in terms of understanding the airflow of these, we used the Finite Element Analysis (FEA) during the design phase to reduce the actual number of physical prototypes, thus allowing us to focus on the studies of these prototypes in more detail. Using this method allowed us to define the overall strength of our rims and hub flanges, including specific

reinforcement points. We also use the FEA to determine the compliance and layup of our rims.



Strength analysis using FEM



LIGHT WEIGHT

Local Reinforcement

Weight is a factor that shouldn't be underestimated, when it comes to the overall performance of a wheel. It influences acceleration, behavior at speed, and general handling characteristics.

The rims of our road and off-road specific wheelsets are manufactured using different types of carbon. In our hubs we also use special aluminums such as AL7075. This allows us to reduce the weight of our wheels as much as possible, without sacrificing their durability and stiffness.

We have developed our own Local Reinforcement Technology (LRT). This unique production technology locally reinforces the rim at the spoke holes, whereas normally the entire spoke hole section is reinforced. Using this technology allows us to save up to 40 grams per rim.

To use a lightweight rim is important in order to achieve a more efficient utilization of a wheel's rotational energy. In contrast, a light yet durable hub helps to increase the lifetime of a wheel.



WEIGHT COMPARISON

WHEELSET

