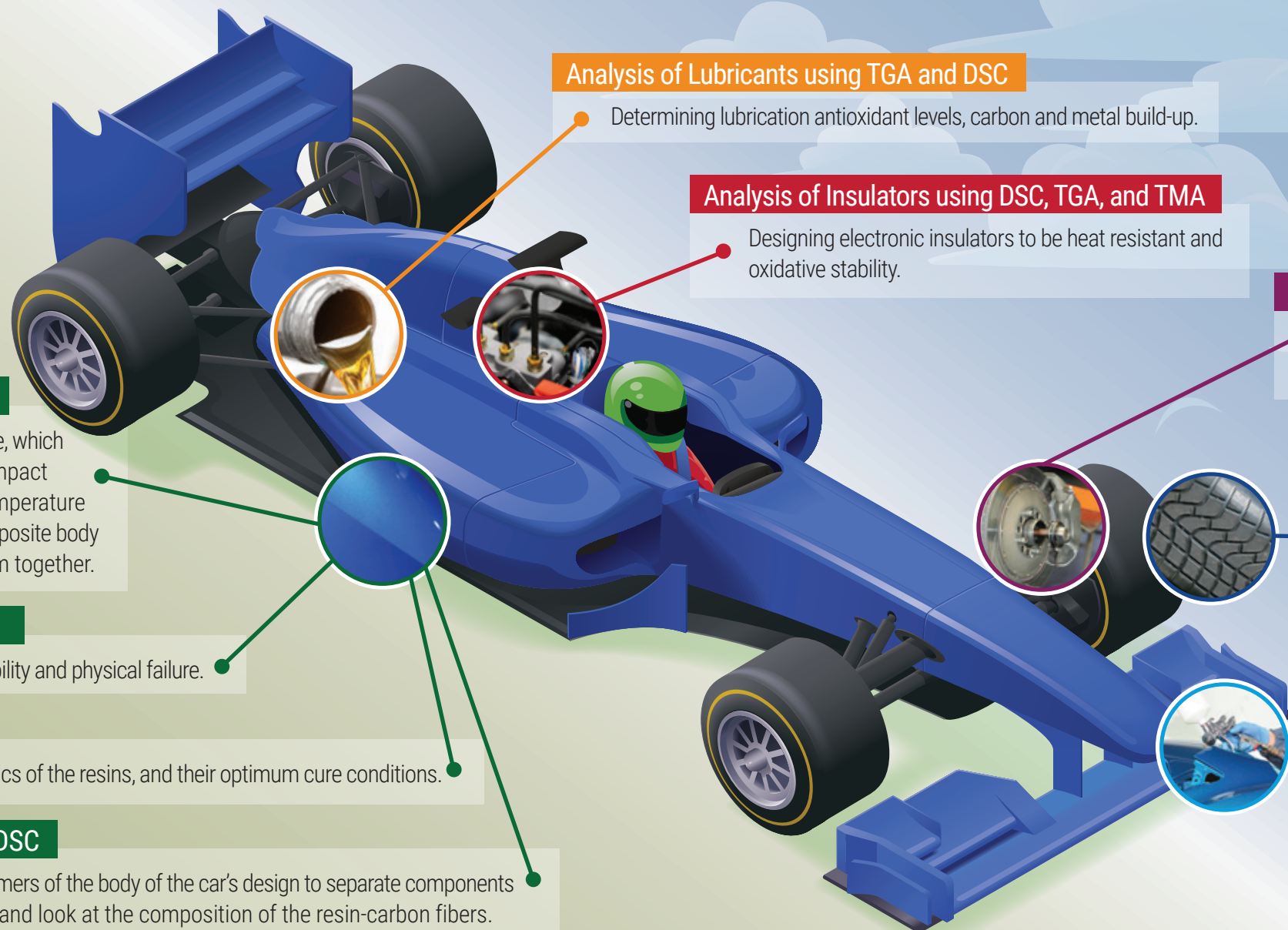


# A Fraction of a Second is the Difference Between Winning or Losing.

*How do you measure speed, performance, safety and reliability?*



## Analysis of Lubricants using TGA and DSC

Determining lubrication antioxidant levels, carbon and metal build-up.

## Analysis of Insulators using DSC, TGA, and TMA

Designing electronic insulators to be heat resistant and oxidative stability.

## Analysis of Brake Linings using TMA, DMA and TGA

Understanding brake lining for thermal stability and coefficient of thermal expansion.

## Analysis of Tires using TGA and DMA

Optimizing performance and consistency of tread rubber, that is designed to stick to the road and abrade. While the sidewall rubber is formulated for flexibility and strength. While looking at the wear properties, temperature behavior, grip and friction behavior of the tire on the road.

## Analysis of Paint using DSC

Curing and testing paint that is designed for cure of the paint and compliance to regulation.

## Analysis of Body using DMA and DSC

Determining the body thermoset composite, which is designed for lightness, strength and impact properties of the polymer composite, temperature superposition. Cure monitoring of the composite body and also the adhesives used to glue them together.

### ...using TMA

Identifying the flexibility and physical failure.

### ...using DSC

Curing characteristics of the resins, and their optimum cure conditions.

### ...using TGA and DSC

Identifying the polymers of the body of the car's design to separate components of the composite, and look at the composition of the resin-carbon fibers.

Learn more at [www.perkinelmer.com](http://www.perkinelmer.com)