

**A Status Report
Carbon Fiber and Carbon Fiber Composite Industry**

**Is the Carbon Fiber Industry Ready for the Automotive Market, and is the
Automotive Market Ready for the Carbon Fiber Industry?**

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ABSTRACT

Carbon fiber composites have been proposed, and tried, in automotive applications for more than 30 years. While a certain degree of technical success has been realized, the major impediments to wide acceptance has been (a) the price of technically-suitable carbon fibers, (b) inadequate availability of fiber, and (c) the absence of high-speed, low-cost production processes. The good news is that these issues have been addressed, and there are signs that the carbon fiber industry is now ready to service not only today's high-performance vehicles, but also the future everyman's street vehicle.

Supply of both high-performance (aerospace) carbon fiber and high-quality industrial grade carbon fiber have increased substantially over the past several years, and supply is expected to exceed predicted demand by the year 2010. More importantly, new methods of fabricating carbon fiber composites have been developed which are: (a) near to the required production cycle times, (b) capable of producing acceptable cosmetic appearance, and (c) near net shape; and, therefore, produce minimum scrap. In addition, the automotive and carbon fiber industries continue to work together to optimize component design, fiber properties, and fiber format.

The optimistic view would be that these two industries are ready to move forward on a major scale by the year 2012. The realist will argue that we have claimed to be at this point before. Hopefully, there is no room for pessimism in either industry.