



Racing Gasoline vs. Aviation Gasoline

Summary: Don't substitute Aviation Gasoline for racing gasoline unless your race engine operates at 10,000 feet altitude, and does not exceed 2800 RPM.

Many racers see Aviation Gasoline (AvGas) as a way to reduce the cost of their racing operation. This may be true, but if you want the most out of your engine and want to avoid problems, AvGas may not be your first choice. AvGas is a good gasoline for low speed aircraft engines that run at 2700 to 2800 RPM at 10,000 feet or higher. This does not mean it is a good gasoline for racing engines operating at 8,000 to 10,000 RPM. AvGas is also illegal to use in anything except aircraft engines. Violations can carry a potential penalty of \$25,000 per day of violation.

AvGas octane numbers are determined in a different test than motor gasoline octane numbers. Do not be confused by the big numbers from the AvGas test method. They are not comparable to motor gasoline test numbers. The 112 octane version of ***Rockett Brand™ Racing Fuels*** tests at 160 on the AvGas Scale.

AvGas is held to tighter requirements than street gasoline, but not nearly as tight as is the entire line of ***Rockett Brand™ Racing Fuels***. Some racing gasoline blenders use AvGas as a blending component to save money. For ***Rockett Brand™ Racing Fuels***, we do not. We use only the highest quality components since AvGas is far too inconsistent to use as a blending stock for ***Rockett Brand™ Racing Fuels***.

AvGas has a lower specific gravity than most racing gasolines. This means that if a racer tries AvGas and has not re-jetted, he can burn a piston because the air-fuel ratio is too lean and/or the engine detonated. To make a good comparison between two gasolines, the air-fuel mixtures must be the same. Even after re-jetting, the racer can experience burned pistons with AvGas if the Motor Octane Number (MON) is lower than what his or her engine needs.

Another potential problem with AvGas is that there are several different octane grades. The 100 grade is green in color. The 100LL is blue in color. The newest AvGas blend is 82UL, purple in color, and is an unleaded blend made with motor gasoline components and is used in aircraft with a FAA Supplemental Type Certificate (STC) which allows usage of automotive gasoline. This 82UL has a very low knock number and should not be used in any racing application.

The bottom line is: AvGas is a poor choice for a racing application. Feed that high dollar racing engine a good grade of gasoline so it will deliver the maximum performance for you. Don't use "low bidder" mentality. This is not the space shuttle.

For Your Nearest Rockett Brand™ Racing Fuels Distributor call: 800-345-0076