

THE TRUTH ABOUT SYNTHETIC OIL

SEPERATING FACTS, NO FICTION

Today's automotive technology is pretty amazing. Yet, many racers often don't give any thought to the oil they use. The fact is the oil you use can have a significant impact on not only your engine's protection but your car's performance as well.

There's been sizable growth in the use of synthetic oils over the years. While many racers and performance enthusiasts recognize the advantages of synthetic motor oils versus mineral-based motor oils, many do not understand the differences between specific synthetic oils.

Much of the confusion surrounding oils has been fostered by those who market motor oil. Terms such as 'full synthetic' or 'blended synthetic', and slogans like 'Not Street Legal' often make things that much more confusing. There is no such thing as a lubricant that isn't street legal.

Whether a lubricant is synthetic-based or mineral-based, chemical additives must be added to the base oil to give the resulting lubricant the needed properties to do its job properly. The ratio of base stock to additives ranges from 75 / 25 to 85 / 15 with base stock accounting for the greater volume. So you would think the base stock is the deciding factor on how well an oil performs, but that isn't the case at all.

Most typical additive agents include detergents to reduce the formation of residue, antiwear agents, friction modifiers, dispersants, and antioxidants making them an integral part of motor oil. Because of this, additive technology creates major performance differences between oils. For instance, a mineral-based oil with a superior additive technology will outperform a synthetic oil with mediocre additive technology. Therefore, differences in an oil's performance can be attributed as much or more to the additive technology as it can be attributed to the base oil.

Most of the major advances in additive technology have come from specialty manufacturers that only focus on producing lubricants as opposed to the major oil companies whose focus is refining petroleum and selling gasoline. One such specialty lubricant manufacturer is Royal Purple. They have developed a proprietary technology, Synerlec, which significantly strengthens their lubricants' film strength.

A lubricant's film strength is a primary factor in its ability to reduce friction. In other words, film strength is an oil's ability to keep two surfaces from coming into contact. The greater the load the oil can bear, the greater the film strength. Hands down, synthetic oils dominate dinosaur oils in this department. The American Society for Testing and Materials (ASTM) provides a meaningful measure of oil's film strength and testing indicates that Royal Purple's Synerlec technology gives its oil an improved film strength when compared to conventional synthetic- and mineral-based oils.

Because of the lower coefficient of friction found in synthetic oils like Royal Purple, they have a greater tolerance to the stresses of heat. By reducing friction, it relieves load on the engine, freeing up trapped horsepower and torque in most instances.

Another property of Royal Purple's Synerlec technology is its ability to micro-polish surfaces. Micro-polishing reduces surface imperfections on a metal surface. Under magnification, it is easy to see how these surface imperfections can cause friction. Royal Purple's lubricants micro-polish and reduce these asperities to further reduce friction and improve combustion.

When it comes to choosing a synthetic oil, not all brands are alike. While the larger oil companies may cut corners in the additives and blending techniques, the smaller companies pride themselves on making specialized synthetic oils that beat up on the bigger guys. They add more detergents, better friction modifiers and other stout additives to make the oil last longer, hold up better and provide the utmost performance you've come to expect out of a synthetic oil.

Remember, the saying 'You get what you pay for' holds true and even more so with motor oils. You're not going to get rich saving money by buying conventional motor oil. After all, protecting your engine from failure should be your prime objective. Nothing does it better than synthetic motor oils.

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