



FAQ's ©2003 Torco

FAQ'S

(Frequently asked questions)

SR-1 SYNTHETIC MOTOR OILS

Q. What makes Torco SR-1 Synthetic Motor Oil better than other oils?

A. Torco has been building specialty lubricant technologies for the high performance and racing industry for over 50 years. Our motor oil technology focuses on improving engine efficiency and engine protection. This is accomplished by developing additive technologies that reduce friction and wear characteristics in areas where there is no fluid film present or what is called "boundary lubrication". Boundary lubrication occurs in many areas of the engine including the upper ring and cylinder wall where 75% of frictional power loss occurs. Generation 2 MPZ reduces friction in this area which in turn will produce 1-3% horsepower and torque gains over other mineral or synthetic oils in the same viscosity grade. Other benefits of reducing friction are: increases engine efficiency, improve fuel efficiency (6-8%), reduces emissions, reduces engine wear and reduces heat.

Q: How often do I have to change Torco SR-1 Synthetic Motor Oil in my car?

A. Torco recommends that you follow the manufacturer's maintenance requirements during the warranty period of the vehicle. For vehicles that are past their warranty period Torco suggests you follow the following schedule:

<u>Ideal Conditions</u> – for vehicles that have been well maintained and subject to regular maintenance intervals including regular oil/filter changes and air filter changes Torco recommends a 12,000 mile oil change with oil filter changes every 4000 miles. Top off oil as needed during filter change.

<u>Severe Conditions</u> – for vehicles that are not well maintained, infrequently used or driven in dirty/dusty conditions Torco recommends a 3000-4000 mile oil change.

Q. Why is Torco SR-1 a little more expensive than some of the other synthetic oil brands?

A. The simple answer to this question is Torco's base oil and friction reducing technology (Generation 2 MPZ) does come at a higher cost but there are many short term and long term benefits to using SR-1. If you are trying to improve the performance of your vehicle, you will get an instant power increase of 1-3% over other synthetic oils. Or, if you are looking for improved fuel economy you will get a 6-8% improvement in fuel efficiency. Other benefits include reduced engine wear, reduced heat, reduced emissions and extended oil change intervals.

So yes, the initial cost may be a little more than other brands but all of these benefits more than make up for the price.

Q. Will Torco SR-1 Synthetic Motor Oil cause my engine to leak?

A. Synthetic motor oils have come a long way in the past 30 years and properly formulated synthetic motor oils will not cause oil leaks or seal damage. Here is a simple suggestion to follow:

If your vehicle currently has slight leaking issues, synthetic oils may cause some additional leakage. The reason for this is, synthetic base oils have a natural solvency which will clean and remove deposits left from other oils. The removal of these materials can increase seal leakage. SR-1 is formulated with a careful balance of synthetic base oils and additives that <u>will not</u> damage properly sealed engines. Torco suggests that you correct any leaks or damaged seals prior to switching to a synthetic.

Q. Should I use an oil additive with Torco?

A. Motor oil is a carefully balanced blend of many materials including base oils, polymers and additive systems including corrosion inhibitors, oxidation inhibitors, anti-foam agents, anti-wear, anti-friction, detergents, dispersants, etc. When you add another material to this balanced combination you are essentially changing the formula which will reduce the performance of the product.

Torco strongly suggests that you don not use polymer based additives as these can cause extensive oxidation (deposits) problems inside the engine. These types of additives are usually marketed to reduce exhaust smoke, reduce oil consumption or oil burning.

Think of your engine oil as your grandma's special cake or cookie recipe. Aside from sticking to the recipe, grandmas usually have a special way of doing things whether it's preheating the oven to a certain temperature or mixing various ingredients separately. Blending our specialty motor oil has a very specific order and process and adding an unknown material to this combination can drastically change the performance of our product.

Q. What viscosity grade of SR-1 should I use in my car?

A. Torco recommends that you follow the required viscosity grade as it is stated in the owner's manual for your vehicle. If you do not have access to your owner's manual, Torco suggests that you contact your local dealer for your vehicle and ask the service department for the required viscosity grade for the year, make and model of your vehicle. If you have a vehicle that has been modified for the street or track, please send us an email to info@torcousa.com or call (562) 906-2120 and we will assist you in determining the correct viscosity grade for your vehicle.

Q Does SR-1 meet the current API and ILSAC requirements?

A. Yes, SR-1 does meet the current API SL requirements. It also meets ILSAC GF-3 requirements for the applicable grades SAE 5w/20, SAE 5w/30 and SAE 10w/30.

Q: Why is Torco harder to find?

A: Like any specialized product Torco can be a little harder to find at times. We encourage you to ask your local service shop or auto parts store for it, they can most likely order it for you. Or you can go to the "Automotive" section of our website (www.torcousa.com) and click on the "Dealers" icon to find a listing in your state, province or country. You can also order it on line from the Torco website. One more option, give us a call at 1-800-649-5722 and we will happily take care of your request.

Q.What does the "W" stand for in an SAE grade such as 10W-40?

A. The "W" stands for "Wintergrade" and the number before the "W' represents the oil's ability to flow (viscosity) at a given temperature below 0° Centigrade and is measured in Centipoise (cP).

Example:

SAE 10W – in order to meet this SAE grade, viscosity is measured on a machine called a Cold Crank Simulator (CCS) at a specific temperature of -25°C and cannot not exceed 7000 cP.

Q. So what does the number after the "W" represent?

A. The second number refers to the oils viscosity at 100°Centigrade (212°F) and is measured in Centistokes (cSt).

Example:

SAE 40 – in order to meet this SAE grade, the oil's viscosity must be between 12.5 cSt and 16.3 cSt at 100°C.

Q. So does that mean that an SAE 5W-40 and an SAE 10W-40 are the same viscosity at 100°C?

A. Yes they are. The only difference is, the 5W40 has the ability to flow at a lower temperature than the 10W40.

Q. So why all of these different 0W, 5W, 10W etc?

A. Well this is where things can get a little more confusing and really depends on the engine requirements and driving conditions.

<u>Driving conditions:</u> If the vehicle is operated in extremely cold conditions a 0W-30 or 5W-30 would be a wise choice as these viscosities have the ability to flow at much lower temperatures than a 10W-30, 15W-40 or 20W-50.

<u>Fuel Efficiency:</u> Even though a 5W-30 and 10W-30 are the same viscosity at 100°C their viscosity characteristics are quite different in cooler parts of the engine. A 5W-30 has less resistance to flow through an engine than a 10W-30. Less resistance translates to improved engine efficiency which improves power and provides better fuel economy. That is why almost all new passenger cars today come factory filled with 5W-30 or even 5W-20 motor oils...for better fuel economy and of course, reduced emissions.

Q. So maybe I should start running some 5W-30 in my old gas guzzling 1972 pickup?

A. We're not finished confusing you yet. Keep in mind that back in those days, engines were certainly not as precision made as they are today. I am referring to the tolerances and even some of the imperfections of internal engine components as they were made and assembled. To compensate for these variables, higher viscosity oils were common place such as SAE 20W50 or even straight SAE straight grades such as SAE 40 and SAE 50. I suggest that you continue to use the SAE grade that is recommended from the owners or service manual for you vehicle. If by chance your early model vehicle requires an SAE 40 or SAE 50 you can use an SAE 20W50 to replace these without any worries.