

WHY REPLACE ENGINE COOLANT

By: Ralph Seekins

Question: I know you recommend regularly changing engine coolant. The coolant in my vehicle looks good in the plastic reservoir. So why should I change it?

Answer: The appearance of engine coolant (commonly called anti-freeze) has very little to do with its condition or the need to replace it. Replacing the engine coolant should be a part of all regularly scheduled maintenance programs as recommended by your vehicle's manufacturer. This vital service will help your vehicle perform more reliability and last longer. Let me explain why.

Engine coolant is the stuff that pulls the heat from your engine and then dissipates that heat as it passes through the radiator. The typical engine cooling system is made up of a number of different components made from different materials. For example, a cooling system may include components made with Aluminum, Copper, Brass, Steel, Rubber and Plastic. As a result, the coolant for any particular cooling system must be compatible with all of those different components – a good reason you should use only the type of coolant your manufacturer recommends. One other good thing coolant does is raise the boiling point above the 212 degree Fahrenheit boiling point of straight water. Radiator boil over is never any fun.

As coolant circulates through your vehicle's cooling system, it also performs some other very important functions. For example, it impedes corrosion and provides lubrication for the water pump seal. As it ages, coolant picks up corrosion and different deposits created in the engine and, as a result, it can become acidic. That acidic fluid along with the dissimilar metals used in the cooling system can actually create a sort of crude battery. The resulting electrical charge in that acidic fluid can then accelerate corrosion of the different component parts of the system and also adversely affect the electronic engine controls. When you change the coolant according to your manufacturer's recommended schedule it prevents this acidic condition and thus helps prevent corrosion and expensive repairs.

In some cases, engine coolant can be in such poor condition that a coolant flush becomes necessary. A coolant flush requires an approved coolant flushing machine and isn't something you want to try at home. A proper flush helps remove corrosion and other deposits that were created in the engine and radiator. Some repair stations recommend a coolant flush any time the coolant is replaced. Our recommendation for a flush (and the recommendation of any reputable service provider) is based on a careful analysis of the old coolant and the condition of the cooling system. It is not an "every time" kind of thing.

Now, when you do replace your vehicle's coolant or have it replaced, it is essential for safe operation in our Interior Alaska climates that the coolant is mixed with water in the proper amounts to have freezing protection down to somewhere between -55 and -60 degrees

Fahrenheit. Too strong a mixture can degrade heater performance and can cause failure of the engine block heater(s).

Replacing the engine coolant as a part of a regularly scheduled maintenance program at the manufacturer's recommended intervals is vital to your vehicle's reliability and longevity. New coolant has a non-acidic, non-corrosive PH level that will not destroy your cooling system components. Using the proper coolant at the proper mixture will help keep your engine from overheating and can prevent it from freezing during cold weather.

If you have questions regarding the coolant condition or the cooling system on your vehicle, we recommend having it checked by your vehicle manufacturer's authorized dealer or repair station. Some, such as our Quick Lane, will perform a courtesy, no charge, inspection for your peace of mind.

Good luck and safe motoring.