



## Technical Service Bulletin 07-3

---

### **Ethanol and Fuel Filter Service Intervals**

Many gasolines are blended with materials called oxygenates. Oxygenated blended fuels are used to help lower emissions. A common material used as an oxygenate is ethanol. While ethanol can be made from a variety of grains and other materials, in North America corn is the primary source. Ethanol used for fuel is an ethyl alcohol made in facilities that produce fuel grade ethanol. The fuel grade ethanol is then blended in a percentage with gasoline to make a finished motor fuel.

Often called gasohol, E10 (10% ethanol/90% gasoline) contains more oxygen so it burns cleaner and helps reduce emissions. E10 also very effectively removes accumulated deposits throughout the fuel system often leading to a shortened fuel filter life. When introduced into a dirty system, the cleansing properties of the ethanol removes the varnishing and deposits from the fuel tank, lines, injectors and other points in the system. The fuel filter traps and holds this contamination and quickly reaches its dirt holding capacity. Once the system is clean, accelerated fuel filter plugging would no longer be experienced and normal service intervals should return.

When distribution and delivery systems are not kept clean, ethanol can "clean" these systems and introduce contaminants into the vehicle's fuel system. If the distribution network is properly maintained and the gasoline is clean going into the vehicle, then a plugged vehicle fuel filter due to the use of E10 is a very rare occurrence. In addition, today's gasoline contains detergents that keep the fuel system clean and prevents deposits from forming.

Since the 1980's, all vehicles worldwide have been manufactured with fuel systems that are designed to use E10. Even manufacturers of small engines have designed and manufactured their engines to be E10 capable.

Beginning in the mid 1990's, vehicle manufacturers introduced some automobiles and light trucks that are capable of using a fuel that is 85% ethanol and 15% gasoline (E85). These vehicles have systems that have the correct sensors and components that can properly use the E85 fuel. While all gasoline automobiles and light trucks can use E10, not all can use E85. Only those vehicles identified as a Flex Fuel Vehicle (FFV) are capable of using the E85 gasoline. A FFV can use any gasoline from

100% unleaded to 85% ethanol. Special fuel filters are required for these applications.

As with the lower percentage blends, E85 is a very effective cleaning agent and if placed in a dirty system, or dispensed through a dirty distribution system, shortened filter life may be experienced until the system is clean.

For additional information, contact:

Filter Manufacturers Council  
P.O. Box 13966  
Research Triangle Park, NC 27709-3966  
Phone: 919/549-4800 Fax: 919/406-1306  
[www.filtercouncil.org](http://www.filtercouncil.org)

Administered by Motor & Equipment Manufacturers Association