

Tech Tip: Ethanol Fuel (E-85 = 85% ethanol)

General Motors encourages the use of E-85 in **vehicles that are designed to use it**. The ethanol in E-85 is a "renewable" fuel, meaning it is made from renewable sources such as corn and other crops.

At a minimum, E-85 should meet ASTM Specification D 5798.

If your vehicle was designed to use E-85 (see below) you may use either regular unleaded gasoline or ethanol fuel containing up to 85% ethanol (E-85). **In all other engines, use only regular unleaded gasoline.** (refer to your vehicles owners manual for more details)

E-85 has less energy per gallon than gasoline, so you will need to refill your fuel tank more often when using E-85 than when you are using gasoline. Regular unleaded gasoline will provide optimum performance and economy when pulling a trailer.

E-85 fuel must be formulated properly for your climate according to ASTM specification D 5798. If you have trouble starting on E-85, it may be because your E-85 fuel is not properly formulated for your climate. If this happens, switching to gasoline or adding gasoline to your fuel tank may improve starting. Your vehicle is designed to accommodate a mixture of gasoline and E-85 fuel. For good starting and heater efficiency below 32°F (0°C), the fuel mix in the fuel tank should contain no more than **70% ethanol**.

Many service stations will not have an 85% ethanol fuel (E-85) pump available. The U. S. Department of Energy has an alternative fuels website that can help you find E85 fuel.

www.afdc.doe.gov/refueling_mapsite.shtml

Those stations that do have E-85 should have a label indicating ethanol content. **Do not use the fuel if the ethanol content is greater than 85%**, your vehicle may not operate properly if the ethanol content is greater than 85%.

Some additives are not compatible with E-85 fuel and may harm your fuel system (refer to your vehicles owners manual for more details). Also, your vehicle was **not designed for fuel that contains methanol**. It can corrode metal parts in your fuel system and also damage the plastic and rubber parts.

To determine if your vehicle is E-85 compatible refer to the 8th digit of your vehicle identification number this shows the code letter or number that identifies your engine. You will find the VIN at the top left of the instrument panel. Following are E-85 compatible engine codes:

2006 – Vin code “K” or “Z” 2005 – Vin code “Z” 2004 – Vin code “Z”

Technical Tip question of the Month. We recently added a new feature to this newsletter, we will ask each month a technical question that was included in a previously distributed newsletter. The person with the appropriate correct answer will be mentioned in the following month's newsletter and be awarded a prize.

Congratulations to Richard Morales, Deputy Director for NYC Environmental Protection, Division of Fleet Services. Correct answer was "B" engine temperature, engine revolutions & operating characteristics to the question of the General Motors patented Oil Life Monitoring System monitors which of the following vehicle conditions?

This month's technical question: **Which of the following statements are correct?**

A - It is more important to check your engine oil more frequently today than in years past due to the fact that engine oil temperatures often exceed engine coolant temperatures which results in normal oil vaporization.

B - Your General Motors vehicle is equipped with Iridium or Platinum tipped spark plugs that are designed to operate under normal vehicle operating conditions for up to 100,000 miles (160,000 kilometers) without periodic maintenance.

The **fifth & tenth** correct answer will win this month's prize.

Good luck !