

Halderman: In the last columns, gasoline and ethanol were discussed. Ethanol is currently used in gasoline in most places in the United States up to 10% (10% ethanol; 90% gasoline). All engines designed to operate on gasoline can operate on E10 (10% ethanol). However, a special vehicle design is required if E85 is used, which is a mixture of 85% ethanol and 15% gasoline. Vehicles designed to operate on E85 are known as flexible fuel vehicles.

Wheels: If I own a flexible fuel vehicle, should I use E85?

Halderman: If you own a flexible fuel vehicle, it is designed to operate on gasoline or E85 or any combination of the two. E85 has less energy per gallon than gasoline and therefore will give lower fuel economy. E85 does cost less than gasoline and using E85 does reduce the amount of crude oil that needs to be imported into the country. E85 is hard to find with stations mostly in the Midwest near corn and ethanol plants. To locate an E85 station near you, check www.e85fuel.com.

Wheels: If the flex-fuel capability is an option, is it worth purchasing a flexible fuel new vehicle?

Halderman: Yes. The cost of the flex-fuel option is usually very low and includes an enhanced fuel system designed for the corrosion affects of ethanol. The fuel lines are stainless steel and the fuel pump is designed using materials that will not corrode in the presence of alcohol.

Wheels: E85 costs less than gasoline. Is there a downside to using E85 in a flex-fuel vehicle?

Halderman: Yes. The amount of heat energy in E85 is about 25% less than gasoline (114,000 versus 85,000 BTUs per gallon) and as a result, the vehicle will deliver less fuel economy. For example, a Chevrolet Tahoe has an EPA gasoline fuel economy rating of 15 mpg in the city and 20 mpg on the highway using gasoline. If E85 is used, the EPA fuel economy rating drops to 11 mpg in the city and 15 mpg on the highway. So while the cost of E85 is lower than gasoline, so is the fuel economy and the distance you can travel on a tank of fuel.

CAUTION: Never use E85 in a vehicle that is not designed to use E85. Major damage can occur to the fuel system components, which could cost thousands of dollars to repair.

