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The Fitch Fuel Catalyst recently underwent testing to update its CARB and EPA certifications. The United States EPA Federal Test Procedure FTP75 was the test procedure employed in accordance with 40CFR 86 as defined in the Federal Register. Automotive Testing and Development Services, a certified EPA test facility located in California conducted the procedure. The fuel used was Reformulated Gasoline PH II introduced into California in 2000.

The test is performed with the selected vehicle being placed on a rolling dynamometer in a closed environmental chamber. In order to establish a baseline, the vehicle is driven a total of 11 miles on this chassis dyno in varying start and stop driving conditions that simulate a city-driving pattern. The emissions of the vehicle are collected and weighed with the results reported in grams per mile.

For this evaluation we selected a Chevrolet Impala with a 350 cu in. (5.7 liter) engine. This carbureted vehicle is a good platform to demonstrate the before and after effects of the Fitch product as a carburetor is a reactive fuel delivery system responding only to airflow. The difference between before and after results can be attributed to the single changed variable, the presence of the Fitch Fuel Catalyst. Therefore results are not amplified or suppressed by the presence of an Engine Management Unit which is a proactive device continuously responding to a variety of inputs and altering the fuel air ratio, fuel timing and ignition timing.

The chart below shows the results obtained on the vehicle prior to installation of the Fitch Fuel Catalyst and the results from repeat FTP 75s after accumulating 1,000 miles of normal driving. The car was extremely clean to begin with, and exceeded the requirements for its model year. After 1,000 miles the vehicle demonstrated a statistically significant increase in fuel economy and reduction in emissions.

350 cu in 5.7l Chevy FTP 75	THC (g/mi)	CO (g/mi)	Nox (g/mi)	CO2 (g/mi)	MPG.
Baseline	0.259	0.844	0.889	674.719	13.121
After 1000 miles	0.238	0.629	0.676	499.970	17.650
% Change	**-8.11%**	**-25.47%**	**-23.96%**	**-25.90%**	**+34.52%**

US EPA Standards	THC (g/mi)	CO (g/mi)	Nox (g/mi)
Tier 0	0.41	3.4	1.0
Tier 1 1998 & above	0.41	3.4	0.4

***A complete copy of this test is on file at our office and is available.

Conclusions and Recommendations.

Engine builders and EMU manufacturers attempting to achieve maximum fuel economy and lowest emission signature are encouraged to employ the Fitch Fuel Catalyst and adjust Engine Management Unit response to exhaust gas oxygen concentration levels to optimize results. In addition to altering the fuel air ratio, altering ignition timing may also help optimize the benefits derived from the presence of the Fitch Fuel Catalyst.