

INSTITUTE OF ENVIRONMENTAL RESEARCH & ENERGY MEDICINE

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ENERGETIC LIQUID FUEL DOPE (Dopa Fuel™)

A 10-year study (1995-2005)

There is a substance which increases the minimum calorific value of liquid fuels. Based on it we produced an aqueous solution and then submitted it to a series of percentage dilutions so that the final product would contain no trace of it but the solvent. i.e. water. Thanks to the technique used this water stores the memory of the particular solute on a molecular-energetic level.

We subsequently impregnated sugar granules in the residual water. It is these impregnated granules that constitute our final product.

When added into a liquid fuel the granules have the same energetic influence on its molecules. i.e. they improve the fuel's quality and efficiency, as the initial substance which was dissolved in water.

They "doped" fuels burn more efficiently and as a result emissions of pollutants are cut. Power output increases, fuel consumption is slightly lower whereas the amount of work done remains the same.

In other words, after treating a liquid fuel with the energetic fuel dope we achieved:

- 1) An increase in the fuel's minimum calorific value.
- 2) An increase in the power output of internal combustion engines whilst ensuring at the same time the engine's smooth operation, a lowering of noise intensity, a limitation of frictions and an enhancement of the engine's survivability.
- 3) A significant reduction of 50-95% in pollutant emissions.
- 4) A lower fuel consumption, depending on the car's age and technology
- 5) An increase in the calorific value of liquid fuel burners.

These results have been based on a series of empirical and laboratory measurements conducted from the end of 1994 up until today.

## INCREASE IN MINIMUM CALORIFIC VALUE

According to measurements carried out at the Aristoteleion University of Thessaloniki and the chemical laboratory of the Public Power Corporation's (D.E.I) "Soronis" power plant. The minimum calorific value of petrol and fuel oil was increased by 1.8%.

## EMPIRICAL MEASUREMENTS

As shown by hundreds of empirical measurements, carried out from the end of 1994 until now, on petrol and diesel engines, on generators, on a diesel motor by D.E.I, on oil burners and a burner of waste oil and fuel oil residues, the fuel dope has brought about a slight reduction in fuel consumption, and a considerable reduction in emissions (the most notable reduction concerning soot).

In old technology vehicles, we noticed that the reduction in fuel consumption gradually grew after a few months. The figures vary according to the engine's type, age and technology.

With regard to modern technology engines, the reduction does not exceed 2-3%. Tests in tachometer-equipped vehicles, with the engine running idle, showed that within 20-30 seconds after adding the fuel dope, there was either an increase or a decrease in revolutions per minute.

Whether or not there would be an increase or decrease, as well as its exact percentage depend on the engine's type. An increase denotes more power output for the same amount of fuel, whereas a decrease means that fuel consumption is lower but power output is the same. With regard to diesel burners, we noticed a reduction in pollutant emissions and in fuel consumption.

## LABORATORY MEASUREMENTS

1. Tests on a laboratory diesel engine (LISTER LV-1) at the National Technical University of Athens (N.T.U.A) showed that, after adding the energetic fuel dope, Dopa Fuel™, with the engine turning at 1500 rpm at 40% load, the specific fuel consumption was reduced by 3.24%, carbon monoxide emissions were reduced by 12.8%, hydrocarbons by 21.87%, nitric oxide by 9.09% and soot particles by 43.75%.
2. Tests on a laboratory OTTO petrol engine at the Technological Educational Institute of Piraeus showed that using the fuel dope, with the engine turning at 2300 rpm resulted in an increase in power output by 8.5% at 40% load and by 6.5% at 60% load.
3. Measurements were carried out on the same petrol engine in order to calculate fuel consumption. A specific amount of fuel was used and the load was

determined at 80%. When we compared the length of the engine's operation before and after the addition of the product, we were presented with the following results:

Rpm	1700	2000	2300	2600
Length of operation without the fuel dope	37.6	34.5	32.4	30.2
Length of operation with the fuel dope	39.6	37.6	35.2	33.3

A similar initial reduction has been observed through empirical measurements, as well. However, the gradual increase in the lowering of fuel consumption, which had been observed during empirical measurements, cannot be put to the test in the laboratory. This increase is due to the fuel dope's energetic properties, but has not been observed in modern engines.

Measurements by a garage exhaust gases analyzer

The measurements were conducted by one of my colleague, who is a car mechanic, and produced the following results:

1. On a conventional car (before 1/10/86), with limit values for carbon monoxide (CO) emissions of 4.50% at idle speed and 4.00% at 2500 rpm and for the concentration of hydrocarbons (IIC) 800ppm at idle speed and 700ppm at 2500 rpm, the measurements showed:

Before adding the fuel dope

Rpm	800	2500
Carbon Monoxide	1.22%	0.82%
Hydrocarbons	157ppm	98ppm

After adding the fuel dope

Rpm	800	2500
Carbon Monoxide	0.76% (37.7% cut)	0.30% (63.4% cut)
Hydrocarbons	89ppm (43.3% cut)	50ppm (48.97% cut)

2. On a VW GOLF 1992 model, equipped with a three-way catalytic converter and limit values for carbon monoxide emissions of 0.50% at idle speed and 0.30% at 2500 rpm and for the concentration of hydrocarbons 120ppm at idle speed and 100ppm at 2500 rpm, the measurements showed:

Before adding the fuel dope

Rpm	1000	2500
Carbon Monoxide	0.61%	0.56%
Hydrocarbons	122ppm	87ppm

After adding the fuel dope

Rpm	1000	2500
Carbon Monoxide	0.03% (95.08% cut)	0.03% (94.64% cut)
Hydrocarbons	17ppm (86.06% cut)	11ppm (87.35% cut)

3. On a Mercedes 200, equipped with a three-way catalytic converter, measurements showed:

Before adding the fuel dope

Rpm	1000	2500
Carbon Monoxide	0.48%	0.50%
Hydrocarbons	63ppm	49ppm

After adding the fuel dope

Rpm	1000	2500
Carbon Monoxide	0.01% (97.91% cut)	0.01% (98% cut)
Hydrocarbons	26ppm (58.73% cut)	19ppm (61.22% cut)

## MEASUREMENTS AT THE RHODES VEHICLE TECHNICAL CONTROL CENTRE (KTEO)

Measurements conducted at the Vehicle Technical Control Centre (KTEO) of Rhodes to examine the emissions from the exhaust of the Nr. 90 refuse collection vehicle owned by the City of Rhodes, showed 0.43 before and 0.36 after treatment with the fuel dope, i.e. a 16.27% cut in pollutant emissions.

Soot particles emitted by the same vehicle reached alarmingly high levels before using the product but were practically eliminated after its use.

Many car owners were facing exhaust gas problems when trying to pass the KTEO technical control. Every single one of them, who asked me for the fuel dope, (Dopa Fuel™), has passed the technical control without any difficulties.

## MEASUREMENTS BY A PORTABLE EXHAUST GAS ANALYZER

Portable exhaust gas analyzers offer the possibility to not only measure carbon monoxide (CO), but also oxides of nitrogen (NO<sub>x</sub>), something which is not possible when using a garage exhaust gas analyzer.

The measurements were conducted by an experienced researcher on a CITROEN SACO (1.4 liter), and revealed a 35% cut in carbon monoxide (CO) emissions and a 50% cut in emissions of nitrogen oxides (NO<sub>x</sub>).

## DYNAMOMETRIC MEASUREMENTS

These measurements were carried out under the supervision of a very good colleague of mine:

1. On a GOLF G.I.I 1800cc, the dynamometer indications were:

### Before adding the fuel dope

Power output: 139HP at 6100 rpm  
Maximum torque: 18.4 at 4600 rpm

### After adding the fuel dope

Power output: 143HP at 6100 rpm

Maximum torque: 20 at 1715 rpm

2. On a SEAT IBIZA the dynamometer indications were:

Before adding the fuel dope

Power output: 98HP

After adding the fuel dope

Power output: 103HP

## SUMMARY

The conducted measurements have confirmed the performances to be gained from the fuel dope's use in liquids. i.e.:

- a) A considerable cut in the emissions of certain pollutants into the air, which is even more significant for cars equipped with a three-way catalytic converter, a 94.5-98% cut in carbon monoxide (CO) emissions, a 60-87% cut in hydrocarbons (HC) and a 50% cut in nitrogen oxides (NOx) emissions.
- b) An increase of 2-8.5% in the power output of internal combustion engines.
- c) A lower fuel consumption, depending on the car's age and technology
- d) An increase in calorific value and a cut in pollutant emissions in oil or fuel oil burners.

## CONCLUSION

Empirical and laboratory measurements over a decade have proven that the energetic liquid fuel dope, Dopa Fuel™, constitutes a new invention, which could help combat air pollution, if it is widely used in engines operating on liquid fuels (planes, ships, trains, car engines, burners, and large combustion plants).

In Athens, most of the atmospheric pollution emanates from cars and oil burners. This energetic fuel dope could therefore prove particularly useful in curbing the atmospheric pollution in the Greek capital but also in other major cities around the world. If used, globally, it could give new breath to our planet.