

### **Ceracoat Speed Engine Cleaner**

By adding it to the fuel (petrol or diesel), it cleans the entire inside of the engine. The product is able to transform the dirt in the engine (deposits, soot) into „gas“ which is then eliminated through the exhaust with the burned gas. This is the big difference between Ceracoat Speed Engine Cleaner to other „standard engine cleaners“ that just take deposits away which remain in the combustion chamber or can even fall down between the cylinder wall and the piston. Then, there is a diminution of compression if this happens.

By completely eliminating the deposits, Ceracoat Speed Engine Cleaner really cleans the combustion chamber and so, re-establishes the compression and reduces the gas emission dramatically. (because there are no more deposits of gas, soot, small metallic particles from wear)

All parts that are in contact with the gas/air mixture of an engine like the valves, carburetor or ignition, pistons, cylinder head, cylinder walls, pistons rings, the entire exhaust system, are also cleaned due to Ceracoat Speed Engine Cleaner.

It also binds existing water drops in the fuel tank and eliminates them and it stops adherence of new engine dirt / deposits for about 10 000 KM. A dose of 100 ml has just to be added to about 15 liters of fuel. First results can already be proved after about 10 minutes of driving.

Some tests that have been done, confirmed and certified by the Chamber of Commerce in Switzerland:

|                                  |                       |
|----------------------------------|-----------------------|
| Density of ceramic               | ca. 0,9 Kg/L - liquid |
| Odor + color of ceramic          | Light + white/yellow  |
| Ceramic particles volume         | 0,1 - 0,5 Micron      |
| Flash point of ceramic           | over 230 C            |
| Auto-ignition point of ceramic   | over 260 C            |
| Water solubility of ceramic      | Insoluble             |
| Viscosity of ceramic             | Thick liquid          |
| Temperature of action by ceramic | ~ 20 to ~ 1800 C      |

#### TESTING RESULTS OF CERACOAT CERAMIC SPEED ENGINE CLEANER

| CLIENT          | First results of C1-C2 | First results of CERACOAT Ceramic | Reduction of exhaust emission with CERACOAT Ceramic Speed Engine Cleaner |
|-----------------|------------------------|-----------------------------------|--|
| Renault         | 4,51                   | 2,05                              | 55%  |
| Bosch           | 3,51                   | 1,55                              | 56%  |
| Technic Service | 2,96                   | 0,94                              | 68%  |
| Dekra           | 3,28                   | 0,52                              | 84%  |
| Opel            | 4,67                   | 2,10                              | 55%  |
| Opel            | 4,39                   | 1,32                              | 70%  |
| Renault         | 3,27                   | 0,76                              | 77%  |
| VAG             | 3,97                   | 0,71                              | 82%  |
| Bosch           | 1,40                   | 0,20                              | 86%  |
| Norauto         | 2,80                   | 1,10                              | 61%  |
| Pansler Brand   | 8,49                   | 1,95                              | 77%  |
| Ferrari         | 0,80                   | 0,31                              | 63%  |
| Citroen         | 4,90                   | 1,00                              | 80%  |



## Ceracoat Ceramic engine coating

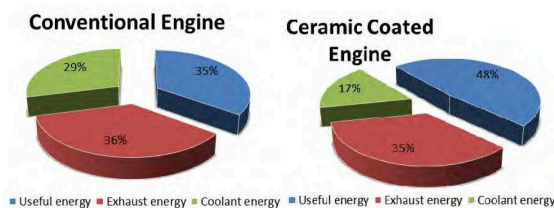
Ceracoat Ceramic Engine Care is a ceramic coating that protects your engine and gear against wear. By adding Ceracoat engine care to the engine oil, it is mixed with the oil and transported by the oil during the lubrication to the cylinder walls and piston rings.

Ceramic materials are polar materials. This means, that those particles adhere to metallic surfaces under 2 conditions: It needs temperature and friction. Polar material adheres to metal.

The ceramic particles adhere to the metal parts in an engine, forming a protection film / protection barrier, that reduces friction and so, wear. Friction and wear is reduced because the friction coefficient of ceramic is much better than of any metallic component. If the friction is reduced, the temperature is reduced as well and there is more engine energy for the engine output. Less friction does automatically mean less metallic soot deposits in the engine, the engine is cleaner and the exhaust emissions are dropping.

So, the main results due to the reduction of friction are important reduction of consumption, temperature, oil consumption, noise, exhaust emission and an increase of the efficiency of the engine, his power output and his engine life.

Ceracoat Ceramic Engine Care also protects your engine during cold start and lubrication fails. During cold starts, the first movements of a piston are not lubricated, because the oil has to be „picked up“ to lubricate between the cylinder walls and the piston. During those first non-lubricated movements, the wear of an engine is very important (metal rubs on metal). An engine that is protected with Ceracoat ceramic engine coating does not have that problem any more, the metallic parts are protected by the ceramic film/layer and do not touch any more.



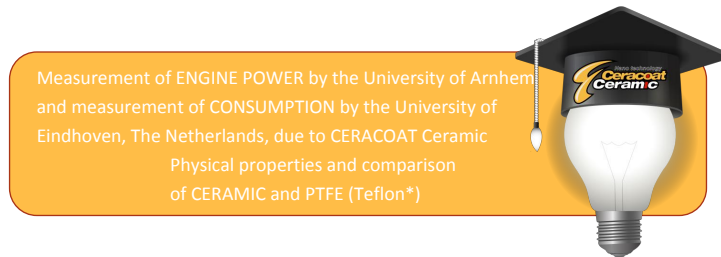
Increase in power

Less starting power needed to start an engine (this will even increase the battery life)

Reduction of Fuel consumption

Chemical Characteristics Of ceramic in Comparison with PTFE (Teflon)

University tests



| Power WITHOUT CERACOAT Ceramic | Power WITH CERACOAT Ceramic | Starting power WITHOUT CERACOAT Ceramic | Starting power WITH CERACOAT Ceramic |
|--------------------------------|-----------------------------|---|--------------------------------------|
| 101,8 kW                       | 106,0 kW                    | 240 Amp                                 | 225 Amp                              |
| 105,6 kW                       | 111,3 kW                    | 330 Amp                                 | 285 Amp                              |
| 214,6 kW                       | 221,5 kW                    |   |                                      |
| 320,9 kW                       | 334,8 kW                    |   |                                      |

| Fuel economy with CERACOAT Ceramic | Over 1812 mls | Over 3556 mls | Over 4528 mls |
|------------------------------------|---------------|---------------|---------------|
|                                    | -4,2 %        | -4,6 %        | -4,9 %        |
| Fuel economy with CERACOAT Ceramic | Normal roads  | Hill roads    | Highway       |
|                                    | -10%          | -6,5 %        | -5,8 %        |

| COMPARISON                    | CERAMIC     | TEFLON (registered trade mark from DuPont company) |
|-------------------------------|-------------|--|
| Friction coefficient          | 0,01-0,1    | 0,04-0,5   |
| Heat transfer coefficient     | 40-70 W/K.m | 0,24 W/K.m   |
| Hazardous combustion products | None        | dangerous CFC                                      |
| Bonding to metal              | Excellent   | none   |
| Polarity                      | Polar       | non polar  |
| Transition                    | Over 1100 C | decomposed after 260 C                             |
| Max operating temperature     | ~ 1800 C    | 260 C  |

## Ceracoat Ceramic engine coating

Here an overall information about the main advantages and their results, due to the reduction of friction in an engine with Ceracoat Ceramic engine coating (engine care):

### IMPORTANT NOTICE:

Our explanations correspond to our current knowledge and experience. The right to make alterations within the framework of technical advances and operational development is reserved. The customer is not released from careful product application. We guarantee the quality of our products in accordance with our general sales conditions as a matter of course. The products are ready-to-use.



### ALL FIGURES FOR CERACOAT CERAMIC

|                               |                              |              |
|-------------------------------|------------------------------|--------------|
|                               | <b>IMPROVES CONSIDERABLY</b> | <b>UP TO</b> |
| Engine life                   |                              | 100 %        |
| Engine power                  |                              | 15 %         |
| Engine elasticity             |                              |              |
| Cold start                    |                              |              |
|                               | <b>REDUCES CONSIDERABLY</b>  | <b>UP TO</b> |
| Friction                      |                              | 35 %         |
| Engine wear                   |                              | 84 %         |
| Oil temperature + consumption |                              | 20 %         |
| Fuel consumption              |                              | 10 %         |
| Exhaust gas emissions         |                              | 85 %         |
| Noise                         |                              | 5dB          |
| Stick-Slip                    |                              | 100 %        |
|                               | <b>STOPS OILLEAK</b>         | <b>100 %</b> |

