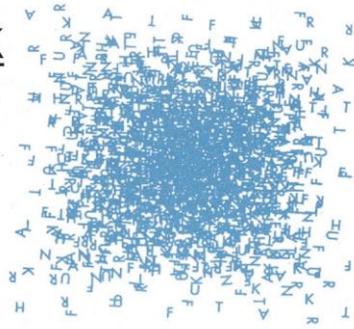


# Labor für Kraftfahrzeugtechnik

Prof. Dr. M. Thesenvitz - Dipl.-Ing.(FH) B. Mohn - Kfz.Mstr. B. Bohl

Fachhochschule Frankfurt am Main -  
University of Applied Sciences  
Nibelungenplatz 1, 60318 Frankfurt am Main



## Test Report

For REWITEC GmbH, Dr.-Hans-Wilhelmi-Weg 1, D-35633 Lahnau

A passenger car with diesel engine was used for a short initial validation of the Rewitec Nanocoating technology. To determine the influence on the fuel consumption and exhaust and particle emissions of the vehicle, the following coatings were applied to the vehicle:

- **Rewitec M2 Nanocoating for engines and**
- **Rewitec G5 Nanocoating for gears**

### Technical characteristics of the car:

<b>Manufacturer</b>	Volkswagen	<b>Type</b>	Passat TDI
<b>Mileage</b>	147,700 (19.12.2006) km	<b>Displacement</b>	1900 cm <sup>3</sup>
<b>Power</b>	96 kW / 4000 rpm	<b>First registered</b>	25. July 2002
<b>Engine</b>	Diesel – Euro 3		

### Course of evaluations:

- 2 particle and exhaust emission tests, New European Driving Cycle (NEDC warm)
- 1 fuel consumption test at 60 km/h (38 mph) constant speed, 3<sup>rd</sup> gear, average time 420 sec.
- 1 fuel consumption test at 90 km/h (56 mph) constant speed, 4<sup>th</sup> gear, average time 420 sec.
- 1 fuel consumption test at 110 km/h (69 mph) constant speed, 5<sup>th</sup> gear, average time 420 sec.

The measurements were taken once before (1<sup>st</sup>) and once after (2<sup>nd</sup>) the treatment of the car with REWITEC Nanocoating. Between the two evaluations the car was driven by its owner in normal work day use for about 3,800 kilometers.

### The results of the consumption values are represented in the following chart:

Measurement	Date	NEDC (warm)	60 km/h	90 km/h	110 km/h	Mileage
	Consumption	l/100 km	l/100 km	l/100 km	l/100 km	
<b>First</b>	19.12.2006	Ø 6.79	5.93	6.23	7.10	147,700 km
<b>Second</b>	14.02.2007	Ø 6.08	5.33	5.88	6.56	151,300 km
	*Consumption Reduction %	- 10.5%	- 10.1 %	- 5.6 %	- 7.6 %	

There is a noticeable decrease in fuel consumption evident over the whole measurement. As a result of this, it is important to recognize the resulting decrease of CO<sub>2</sub> and particle emissions.

*\*Altered presentation of results: At the request of Rewitec the calculated results of the Consumption Reduction have been amended by the first decimal place in June 2015. SGD. Dipl.-Ing. (FH) Bernd Mohn*

Frankfurt am Main, 16.02.2007

  
Prof. Dr.-Ing. Manfred Thesenvitz

  
Dipl.-Ing. (FH) Bernd Mohn