

# Test Report

## Product description

<b>Product name:</b>	<b>Neways Roil Platinum Fuel Treatment (Diesel), # 5384</b>
<b>Producer:</b>	CTP GmbH/PRO-TEC Deutschland
<b>Product properties:</b>	The Neways Roil Platinum Fuel Treatment (Diesel) removes lastingly all contamination caused during operation throughout the entire Diesel system up to the combustion chamber, removes resinifications and blockings in the injection nozzles and injection pumps, carbonisation residues and soot deposits in the whole upper cylinder zone, lubricates and protects the Diesel injection system as well as the whole upper cylinder area.
<b>Product character:</b>	EC Safety Data Sheet
<b>Application area:</b>	Applicably in all diesel engines, Catalyst and turbo-recommended. Addition into the fuel cycle.
<b>Application:</b>	Add Neways Roil Platinum Fuel Treatment (Diesel) into the fuel tank as per the dosing indication or using a dosing device.
<b>Dosing:</b>	375 ml for cars 0,25% of the tank volume for trucks

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## Inspection

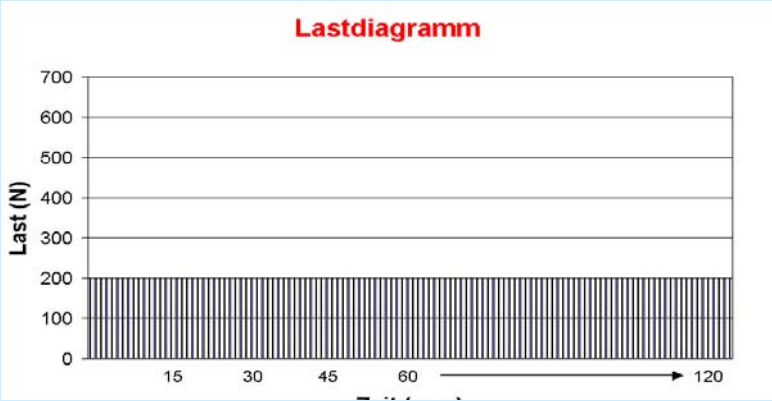
Product properties mentioned here below have to be checked within this test report. Corresponding test standards are used as control basis.

Test	Control basis
Wear protection	Friction test
Cleaning effect	Nozzle pattern
Emission reduction	Exhaust gas test
Compression test	Compression test

## Test execution

Friction test	
<b>Objective:</b>	Friction test on a standard body with and without using Neways Roil Platinum Fuel Treatment (Diesel)
<p>The wear protection test is carried out according to DIN 51 350 and DIN 68 861. The selected load task in a time interval of max. 120 seconds is not identical with the conditions under normal vehicle operation. The objective of this test is it to prove the effect of the wear protection component in the product.</p>	

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Friction test	
<b>Procedure</b>	
Equipment:	Timken machine
Test body:	Steel h= 10 mm , d = 6 mm
Temperature:	23°C
<b>Material:</b>	
Diesel Neways Roil Platinum Fuel Treatment (Diesel) Diesel and Neways Roil Platinum Fuel Treatment (Diesel)	
Force (N)	Time (s)
200	0 – 15
<div style="text-align: center;">  <p><b>Lastdiagramm</b></p> </div> <p>* Lastdiagramm = Load diagramm            Last = Load            Zeit= Time</p>	
<b>Remarks:</b>	
* Due to the high evaporation of diesel and Neways Roil Platinum Fuel Treatment (Diesel) the friction test was carried out only with max. 200 N.	

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<b>Nozzle pattern</b>	
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<b>Procedure</b>	<p><u>Before</u> the use of Neways Roil Platinum Fuel Treatment (Diesel) the nozzle to be checked is removed and inserted into the diesel injection nozzle tester. Afterwards the diesel is led under pressure through the nozzle and the nozzle spray pattern is recorded (see example in the appendix).</p> <p>The nozzle is inserted again into the car and a direct cleaning of the fuel system is carried out (see work instruction in the appendix). After using the Neways Roil Platinum Fuel Treatment (Diesel) same procedure is repeated and another nozzle spray pattern is recorded.</p>
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<b>Emission reduction</b>	<b>Compression test</b>
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<b>Procedure</b>	<p><u>Before</u> the use of Neways Roil Platinum Fuel Treatment (Diesel) the soot turbidity in the exhaust gas and the compression of the single cylinders are determined.</p> <p>Subsequently, a direct cleaning of the fuel system (see work instruction in the appendix) is carried out.</p> <p><u>After</u> the use of Neways Roil Platinum Fuel Treatment (Diesel) the soot turbidity in the exhaust gas is determined.</p>
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<b>Remark</b>
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The results are indicated in a combined result sheet of PRO-TEC (see appendix).

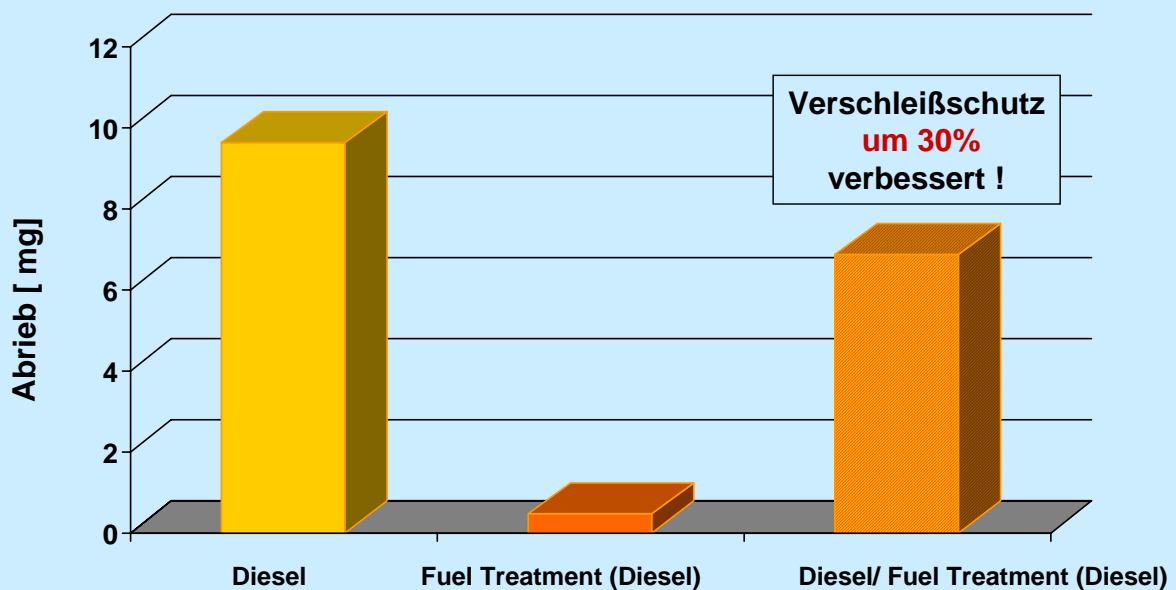
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## Evaluation

Friction test				
Diesel				
Test body	Weight [g]		Friction [mg]	
No.	before	after	Difference	Average
50	8,51191	8,50171	10,2	9,61
51	8,51114	8,50362	7,52	
52	8,51544	8,50433	11,11	
Neways Roil Platinum Fuel Treatment (Diesel)				
Test body	Weight [g]		Friction [mg]	
No.	before	after	Difference	Average
47	8,50974	8,50919	0,55	0,47
48	8,51353	8,51311	0,42	
49	8,51675	8,5163	0,45	
Diesel und Neways Roil Platinum Fuel Treatment (Diesel)				
Test body	Weight [g]		Friction [mg]	
No.	before	after	Difference	Average
44	8,5168	8,51011	6,69	6,82
45	8,51425	8,50876	5,49	
46	8,51428	8,50601	8,27	

# Test Report

## Friction test



\* Abrieb = Friction  
Verschleißschutz um 30% verbessert = Wear protection improved by 30%

## Result evaluation

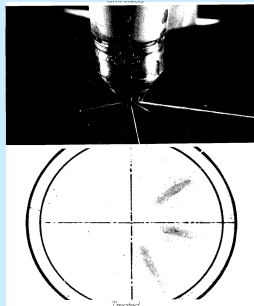
The tests showed that the application of the product Neways Roil Platinum Fuel Treatment (Diesel) generates the wear protection. The tests were carried out with pure diesel and pure Neways Roil Platinum Fuel Treatment (Diesel). Afterwards Neways Roil Platinum Fuel Treatment (Diesel) was added to diesel (7,5 ml Fuel Treatment (Diesel)/1000 ml diesel  $\equiv$  375 ml Fuel Treatment (Diesel)/ 50 l diesel) and the friction test was carried out.

By using Neways Roil Platinum Fuel Treatment (Diesel) in the fuel it could be proved that the wear protection in the diesel improved by approx. 30%. In this way strongly used engine components, the whole diesel injection system and the upper cylinder area are protected and the maintenance is optimally generated.

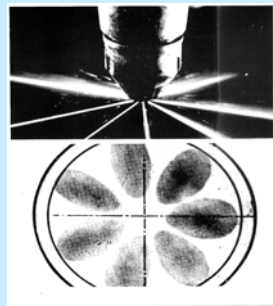
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## Nozzle pattern

BEFORE cleaning



AFTER cleaning



## Result evaluation

The tests showed that the application of the product Neways Roil Platinum Fuel Treatment (Diesel) can clean the injection nozzles from contamination such as carbonisation. The tests were carried out with the product, with the imprint equipment and a turbidity valuation (AU - in K-value). The dirt removing effect of the fuel system up to the combustion chambers could be realized by the using the Neways Roil Platinum Fuel Treatment (Diesel) (see also test data sheet "Turbidity value measurement").

The use of Neways Roil Platinum Fuel Treatment (Diesel) guarantees the cleaning of the injection nozzles and provides an optimal combustion.

The turbidity values showed that the values could be improved by 40,5 %. Further representative test data sheets are available at PRO-TEC.

# Test Report

Emission reduction				Compression test			
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<b>Engine type:</b>	Diesel	<b>Kilometer:</b>	169670
<b>Emission</b>	<b>before</b>	<b>after</b>	<b>Result</b>
<b>Turbidity / Soot (ppm)</b>	1,58	0,94	improved by 40,5
<b>Speed (U/min)</b>	820	705	

<b>Engine type:</b>	Diesel				<b>Kilometer:</b>				
<b>Compression</b>	<b>before</b>				<b>after</b>				(Kp. after - Kp. before) *100
<b>Cylinder</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	Kp. before
<b>Compression pressure</b>	20	17	25	19	24	25	26	25	improved by 23,5 %

## Result evaluation

A large number of data was available for the evaluation. This can be examined at PRO-TEC. The a. m. test results were carried out at the PRO-TEC company. The exhaust gas values of the vehicle and the compression were measured before the use of Neways Roil Platinum Fuel Treatment (Diesel). After the use, the measurements were repeated (see for example the test data sheet "Turbidity value determination"). Before cleaning the determined turbidity value was 1,58 K. After cleaning the turbidity value sank to 0,94. This corresponds to an improvement of 40,5%.



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A further effectiveness test was carried out with a compression measurement. Before the use of Neways Roil Platinum Fuel Treatment (Diesel) the vehicle compression was determined and an exhaust test was carried out. In the evaluation of the investigations it was stated that the compression was on average 20,25 with a maximum difference value of 8. This is due to the contamination in the entire fuel system up to the injection nozzles. After the cleaning, 375 ml Neways Roil Platinum Fuel Treatment (Diesel) were added to the diesel fuel. The compression improvement was 23,5 % (from 20,25 to 25). In this way the dirt removing effect of the Neways Roil Platinum Fuel Treatment (Diesel) could be proven. The use of Neways Roil Platinum Fuel Treatment (Diesel) has no harmful effect on the engine care. On the contrary - the application of the product optimizes the performance values.

Arnstadt, June 30, 2003

T. Heßler  
TÜV Thüringen Anlagentechnik GmbH

**Remark:**

Translation into English language carried out by CTP GmbH / PRO-TEC Deutschland in July 2009.

The present document only represents the English translation of a German text. In case of doubt on the meaning of this translation, the German text version is legally binding.