



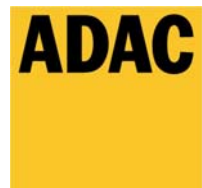
EcoTest

November 2007 Test Report Based on “EcoTest Protocol Release 2.0”

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1 Introduction

EcoTest is the only rating for consumers which offers an integral assessment of a car's operation under real-world load cycles. Consumers can rest assured that EcoTest does not evaluate only CO₂ emissions in standard driving cycles. We evaluate all controlled exhaust emissions, taking into account the use of air conditioning and vehicle behaviour under full load. The result is a simple and easy-to-understand rating of 1 to 5 stars for each car. The latest EcoTest results will now be available on the Internet. At www.adac.de/tests, German consumers can easily look up and compare current models. The same information will be available to international consumers at www.ecotest.eu.

2 November 2007 Highlights

The latest ADAC EcoTest results show that an eco competition has started and is slowly gaining momentum. The manufacturers have launched various eco models: VW calls its series BlueMotion; Audi simply labels its efficient models “e”, and BMW's label is “EfficientDynamics”. Models with features such as optimised rolling resistance, improved aerodynamics, modified gear-box stepping and gear shift indicators (BMW's feature an additional auto start-stop function) have scored considerably.

Among the small family cars the hybrids are still in the lead. The Toyota Prius 1.5 reigns supreme with 89 points for almost five stars. The Honda Civic 1.3i DSi Hybrid with 83 points and four stars is a good old acquaintance. But some manufacturers have risen to the challenge. The newly tested VW Touran EcoFuel scores respectable 78 points (four stars) in its CNG version. It has a strong fifteen CO₂ point lead over the more powerful petrol version and impressively demonstrates the advantage of a CNG drive-train (**Table 1**).

Table 1: VW Touran comparison

Model	Emission Levels	KW	CCM		l/100km or kg/100km	Points Pollution	Points CO ₂	EcoTest Rating
Diesel blue / Gas vehicles green / Hybrid vehicles highlighted blue								
Class 4: Small Family								
VW Touran EcoFuel Trendline (CNG)	Euro4	80	1984	11.06.2007	5,57	50	28	78 ****
VW Touran 2.0 FSI Trendline*	Euro4	110	1984	29.11.2004	8,31	49	13	62 ***

*) discontinued

The Audi A3 1.9 TDI e Ambition (DPF) also lives up to its “e” moniker with 76 points (four stars), catching up seven CO₂ points. EcoTest also proves that technological development is worthwhile in other areas as well. Diesel particle filters (DPF) also protect the environment and automatically bring another seven points in EcoTest, making it easy to win an additional star (**Table 2**). However Audi has not gone completely eco – its S3 has unusually high CO₂ emissions. Only by good scores in the pollutants department could this vehicle amass 52 points for a three star rating.

Table 2: Audi comparison

Model	Emission Levels	KW	CCM		l/100km or kg/100km	Points Pollution	Points CO ₂	EcoTest Rating
Diesel blue / Gas vehicles green / Hybrid vehicles highlighted blue								
Class 4: Small Family								
Audi A3 1.9 TDI e Ambition (DPF)	Euro4, 5L	77	1896	09.07.2007	4,89	41	35	76 ****
Audi A3 1.9 TDI Attraction*	Euro4	77	1896	10.05.2004	5,48	34	28	62 ***
Audi S3	Euro4	195	1984	25.06.2007	9,4	47	5	52 ***

*) discontinue

The BMW 123d is equipped with a selectable auto start-stop feature and an optimum gear shift indicator. Using both, it scores 72 points for four stars. Compared with the 120d, it has somewhat lower pollutant emissions (plus 2 points) and clearly fewer CO₂ emissions (plus 12 points). With all this it still produces 30kW more power than the 120d. This means an additional star (**Table 3**).

Table 3: BMW comparison

Model	Emission Levels	KW	CCM		l/100km or kg/100km	Points Pollution	Points CO ₂	EcoTest Rating
Diesel blue / Gas vehicles green / Hybrid vehicles highlighted blue								
Class 4: Small Family								
BMW 123d (DPF)	Euro4	150	1995	25.09.2007	5,32	40	32	72 ****
BMW 120d (DPF)*	Euro4	120	1995	09.12.2005	6,55	38	20	58 ***

*) discontinue

Among the family cars, the VW Passat BlueMotion with DPF with its 82 points has outclassed the best performer from June 2007, the Skoda Octavia RS TDI (DPF) estate (81 points). Both vehicles have won a good four star EcoTest rating. The progress on the more powerful Passat 2.0 TDI is impressive. The BlueMotion leads with seven CO₂ points over the standard edition, without giving up its good performance in pollutant emissions (**Table 4:** VW Passat comparison).

Table 4: VW Passat comparison

Model	Emission Levels	KW	CCM		l/100km or kg/100km	Points Pollution	Points CO ₂	EcoTest Rating
Diesel blue / Gas vehicles green / Hybrid vehicles highlighted blue								
Class 5: Family								
VW Passat BlueMotion (DPF)	Euro4	77	1896	26.06.2007	5,21	42	40	82 ****
VW Passat 2.0 TDI Sportline (DPF)	Euro4	103	1968	13.05.2005	6,13	41	33	74 ****

The target must be the development of a car which can win 5 EcoTest stars. In order to achieve this, the following steps will be necessary:

- Another reduction in fuel consumption, taking into account driving cycles and additional energy users (e.g. air conditioning).
- Cutting NO_x emissions from diesel engines with combined exhaust systems for NO_x and PM reduction.
- Stop fuel enrichment for power enhancement under full load driving conditions for petrol engines (spark-ignition).

3 EcoTest label

There are a few manufacturers who have recognised that the EcoTest rating can be an independent seal of excellence and use their results to gain competitive advantage. The new EcoTest label is available. It can be used across Europe with ADAC's or other national motoring clubs' logos. **Figure 1** shows a sample EcoTest label with the ADAC logo.



Figure 1: EcoTest label (sample: ADAC)