2023

Audi A6

50 TDI quattro diesel AWD automatic

6.9 /10	3.4 /10	0.8 /10
Clean Air Index	**Energy Efficiency Index**	**Greenhouse Gas Index**

6.9 /10 Clean Air Tests

	Laboratory Test	NMHC	NO_x	NH_3	CO	PN
8.5/10	**Cold Test**					
9.3/10	**Warm Test**					
0.0/10	**Highway**					
	Cold Ambient Test	Does not qualify for additional robustness testing				
	Road Test					
9.5/10	**On-Road Drive**					
4.0/5	**On-Road Short Trip**					
	On-Road Heavy Load	Does not qualify for additional robustness testing				
	On-Road Light Load	Does not qualify for additional robustness testing				
	Congestion	Does not qualify for additional robustness testing				

n.a. good adequate marginal weak poor

Comments

Pollutants are handled quite well in the standard WLTC+ Lab Tests with results which are close to maximum points. Particle emissions are controlled impressively – close to Green NCAP's lower threshold or even better, as in the On-Road Test, where the diesel Audi demonstrates astonishing results. The weak point of this model is revealed in the BAB130 Highway Test – here the NO_x aftertreatment loses robustness during the high power acceleration phases and emissions of this toxic compound are excessive, leading to 0 overall points for this test.

3.4 /10 Energy Efficiency Tests

	Laboratory Test	Energy
3.4/10	Cold Test	
4.1/10	Warm Test	
2.8/10	Highway	
	Cold Ambient Test	Does not qualify for additional robustness testing

	Consumption	Driving Range
Average	6.7 l/100 km	941 km
Worst-case	7.2 l/100 km	880 km

n.a. good adequate marginal weak poor

Comments

The turbocharged diesel engine requires no less than 6 l/100 km – 7.2 litres in the Highway Test and 6.1 litres in the real-world On-Road drive, where the first 8 kilometres (Short Urban Trip) require about 8.2 l/100 km. The figures are creditable given the vehicle's mass of 2 tonnes and its big engine, delivering 210 kW and 620 Nm. With a tank capacity of 63 litres, the Audi should be able to go for about 1,030 km in a standard combined real-world driving.

0.8 /10 Greenhouse Gases Tests

	Greenhouse gases	CO_2	N_2O	CH_4
0.8/10	**Cold Test**			
1.8/10	**Warm Test**			
0.1/10	**Highway**			
	Cold Ambient Test	Does not qualify for additional robustness testing		

n.a. good adequate marginal weak poor

Comments

Like other conventional cars, greenhouse gases are the most challenging category for the Audi A6. CH_4 is controlled very well and earns the maximum bonus points, but – typically for diesel powertrains – the 50 TDI struggles with N_2O. CO_2 is already around 170 g/km at the tailpipe in both WLTC tests and rises to 190 g/km during the more challenging Highway. The addition of the emissions related to diesel production and supply reduces further the Audi's score in this part of the assessment.

Our Verdict

The Audi A6 is a full-size executive limousine and is tested here with a top-of-the-line three-litre turbocharged diesel engine, providing 210 kW peak power. Its lighter and less powerful variants might perform better in Green NCAP but this one, like most other fossil fuelled cars, has limited potential for minimizing greenhouse gas emissions, even though the diesel powertrain is more efficient than the petrol counterpart. The high mass of two tonnes also makes it more difficult to keep consumption and CO_2 emissions low. However, with about 6-7 l/100 km, the car presents respectable consumption figures for its type. The performance in the Clean Air Index is impressive, demonstrating unusually low particle emissions and excellent control of the other polluting species. Nevertheless, the Motorway test revealed a serious weakness of the exhaust aftertreatment – under high-power conditions NO_x treatment loses robustness and the emissions rise significantly over Green NCAP gross exceedance thresholds. As a consequence, the total Highway Test result is set to zero and the Audi loses valuable points. Overall, the 50 TDI quattro scores an average of 37% and 2 Green Stars, and could have done better if it were not for the emissions control in the BAB130.

Disclaimer

Specification

Tested Car
WAUZZZF28PN01XXXX

Publication Date	Vehicle Class	Tyres	Emissions Class
09 2023	Executive Car	225/55 R18	Euro 6d AP
Mass	**Engine Size**	**Power/Torque**	**Declared CO_2**
2,003 kg	2,967 cc	210 kW/620 Nm	175 g/km

Declared Battery Capacity	Declared Driving Range	Declared Consumption
n.a.	n.a.	6.7 l/100 km

Heating Concept
Waste heat

green ncap

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