



2019

FIAT Panda

CNG 0.9 Twinair 4x2 gas-petrol manual



5.0

Clean Air Index 4.9 4

Energy Efficiency Index



Clean Air Tests

	Laboratory test	НС	со	NO _x	PN
0/9	Cold Test*				
3.0 /3	Warm Test#	•			
3.0 /3	Eco Mode#				
3.0 /3	Sport Mode#	•			
2.9 /9	Highway#				
	Road test				
5.5 /7	On-Road Drive*				
	Robustness				

Green NCAP determines particulate number using industry-standard measuring equipment, which can detect particles larger than 23 nm. There is some evidence that cars which perform well when measured in this way may in fact be emitting large numbers of much smaller (sub 10 nm), and very harmful particulates.

^{*} Adapted regulatory test # Additional Green NCAP tests



Comments

Good or adequate control of pollutant emissions when running in gas mode is let down by extremely poor control of particulates when the car is switched to petrol. As a result, the score is penalised and the Clean Air Index of 5.0 limits the car to a two-star overall rating.

Energy Efficiency Tests

Laboratory test	Energy
6.7 /10 Cold Test*	
2.1/3 Warm Test#	•
2.1 /3 Eco Mode#	
2.1/3 Sport Mode*	•
3.8 /10 Highway*	
Consumption	Fuel
Average consumption	4.2 I /100 km
Worst-case consumption	5.1 l /100 km













Energy efficiency is adequate in most of the laboratory tests but fall to marginal in the high-load assessment.

Comments

^{*} Adapted regulatory test # Additional Green NCAP tests

Additional Information

Greenhouse Gases **	CO2
Cold Test*	•
Warm Test#	•
Eco Mode#	
Sport Mode#	•
Highway*	•

 $^{^{**}}$ For indication only. The assessment of greenhouse gases does not currently form part of the rating.



good adequate marginal weak

poor

^{*} Adapted regulatory test # Additional Green NCAP tests



The Panda, tested previously by Green NCAP in its Euro 6b petrol form, is assessed here as the Euro 6d-temp CNG/petrol bi-fuel variant. The car has a 12 kg CNG tank and a 35 litre fuel tank, meaning that it will spend much of its time being driven on petrol, in addition to its compressed natural gas (CNG) 'primary' fuel. When running on gas, pollutant emissions are generally well controlled. However, when the vehicle is run on petrol, and with no gas particulate filter, emissions of particulates are extremely high, over twenty times higher than CNG mode in the case of the cold test. Even in CNG mode, hydrocarbon emissions are above Green NCAP's poor-performance limit in the high-load test. As a consequence, the Clean Air Index is a modest 5.0, limiting the overall rating to two stars. Energy efficiency is marginal, especially in the high load test, and the average fuel consumption in gas mode is 4.2 kg/100 km. Overall, the relative sizes of the CNG and petrol tank mean that the car will be run on both fuels, while FIAT has optimised the car only for one.

Year of Publication

5019

Mass

Tyres 175/65R16 Tested Car

Engine Size 875 cc

Published CO₂ 97 g/km Emissions Class
Euro 6d-Temp

Engine Power/Torque
52 kW/xx Nm











2019

SEAT Arona

1.5 TSI 4x2 petrol manual



9.8

Clean Air Index 6.1 4

Energy Efficiency Index



Clean Air Tests

	Laboratory test	НС	со	NO _x	PN
9.0/9	Cold Test*				
3.0 /3	Warm Test#				
3.0 /3	Eco Mode#				
3.0 /3	Sport Mode"				
8.6 /9	Highway#				
	Road test				
7.0 /7	On-Road Drive*				
	Robustness				













good adequate marginal weak

poor

Comments

The Arona shows impressive control of pollutant emissions and its Clean Air Index of 9.8 is well above the five-star threshold. Effective exhaust after-treatment leads to good results almost across the board, dropping to marginal only for carbon monoxide emissions in the high-load test.

^{*} Adapted regulatory test # Additional Green NCAP tests



Energy Efficiency Tests

<u>Laboratory test</u>	Energy
8.0/10 Cold Test*	
2.5/3 Warm Test*	•
2.5 /3 Eco Mode#	
2.5/3 Sport Mode [#]	•
5.4 /10 Highway#	
Consumption	Fuel
Average consumption	5.9 l /100 km
Worst-case consumption	7.3 l /100 km













good adequate marginal weak

poor

Comments

With an Energy Efficiency Index of 6.1, the Arona's overall rating is limited to four stars. Energy efficiency is adequate in all tests except the high-load highway assessment, where it drops to marginal.

^{*} Adapted regulatory test # Additional Green NCAP tests

Additional Information

Greenhouse Gases **	CO ₂
Cold Test*	
Warm Test*	•
Eco Mode#	
Sport Mode [#]	•
Highway#	

 $^{^{**}}$ For indication only. The assessment of greenhouse gases does not currently form part of the rating.



good adequate marginal weak

poor

^{*} Adapted regulatory test # Additional Green NCAP tests



Our verdict

SEAT's small SUV crossover, the Arona, turns in a strong performance in Green NCAP's tests. With a 1.5 litre GDI engine and comprehensive exhaust after-treatment, including a three-way catalyst and gasoline particulate filter, the Euro 6d-Temp compliant car scores almost full marks for Clean Air, with an index of 9.8 out of 10. Control of all pollutant emissions is good in all tests except the high-load highway test, where particulate emissions are adequate and CO emissions slip to marginal. In general, though, the after-treatment works exceptionally well and the result for Clean Air is an impressive one. For Energy Efficiency, performance is adequate but unexceptional and the car just clears the four-star threshold. Overall, the car's rating is limited by its performance in this part of the assessment.

Year of Publication

Mass

1,368 kg

Tyres 215/45 R18

Tested Car

Engine Size 1,498 cc

Published CO₂ 132 g/km Emissions Class

Engine Power/Torque
110 kW/250 Nm







2019

Škoda Octavia

2.0 TDi DSG 4x2 diesel automatic



6.7

Clean Air Index 5.7 4

Energy Efficiency Index



Clean Air Tests

	Laboratory test	НС	со	NO _x	PN
7.8 /9	Cold Test*				
2.7 /3	Warm Test#				
2.7 /3	Eco Mode#				
2.7 /3	Sport Mode"				
0/9	Highway"				
	Road test				
7.0 /7	On-Road Drive*				
	Robustness				













good adequate marginal weak

poor

Comments

Control of HC, CO and PN is good in all tests. However, emissions of NO, are less well controlled, especially in the high-load test. Here, the high NO emissions are penalised to the extent that the car scores no points in this test.

^{*} Adapted regulatory test # Additional Green NCAP tests



Energy Efficiency Tests

<u>Laboratory test</u>	Energy
7.5 /10 Cold Test*	
2.4/3 Warm Test#	•
2.4 /3 Eco Mode#	
2.4/3 Sport Mode*	•
4.9 /10 Highway*	
Consumption	Fuel
Average consumption	5.5 I /100 km
Worst-case consumption	6.6 I /100 km













Energy Efficiency is generally adequate, with an average consumption of 5.5 I/100 km. In the high-load highway test, efficiency drops to marginal.

Comments

^{*} Adapted regulatory test # Additional Green NCAP tests

Additional Information

CO ₂	
•	
•	
	CO ₂

 $^{^{**}}$ For indication only. The assessment of greenhouse gases does not currently form part of the rating.



good adequate marginal weak

poor

^{*} Adapted regulatory test # Additional Green NCAP tests



The third-generation Škoda Octavia is tested here with the 110 kW, 2.0 diesel engine. With exhaust gas recirculation, selective catalyst reduction and a diesel particulate filter, control of pollutant emissions, especially hydrocarbons (HC), carbon monoxide (CO) and particulates (PN), is good. For Clean Air, the car is let down only by its emissions of oxides of Nitrogen (NO $_{\rm x}$). Adequate in most tests, marginal in the cold-start test, control of NO $_{\rm x}$ is poor in the high-load highway test, with emissions so high that the car fails to score any points in this part of the assessment. This largely contributes to its modest 6.7 for the Clean Air Index. Its Energy Efficiency is also at the three-star level, with adequate performance in most tests and marginal performance in the high-load test. Values of CO $_{\rm z}$ very close to its declared value of 139 g/km were recorded in all tests except the high-load assessment. Overall, an average performer, with room for improvement in control of NO $_{\rm z}$ emissions.

Year of Publication

2019

Mass 1.575 kg

Tyres

Tested Car

Engine Size 1,968 cc

Published CO₂ 139 g/km Emissions Class
Euro 6d-Temp

Engine Power/Torque
110 kW/250 Nm

