Audi

2019

Audi A7 Sportback

50 TDI, 4x4 auto

7.3 /10

Clean Air Index

2.5 /10

Energy Efficiency Index

7.3 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
8.9/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
0.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

With the exception of NOx in the high-load highway test, all pollutant emissions are well or adequately controlled in the lab tests and in the on-road drive. However, in the highway test, values of NOx were sufficiently high that all points were lost in this test.

2.5 /10 Energy Efficiency Tests

	Laboratory test	Energy
3.2/10	Cold Test*	
1.3/3	Warm Test#	
1.3/3	Eco Mode#	
1.2/3	Sport Mode#	
1.4/3	Highway#	

	Consumption	Fuel
	Average consumption	7.4 l/100km
	Worst-case consumption	8.4 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is marginal or weak in the lab tests and in the on-road drive. The lowest score was in the high-load highway test.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

The Audi A7 50 TDI has a three-litre diesel engine that produces 210kW and a huge 620Nm of torque at revs as low as 2250rpm. It is also a big car, weighing in at over 2200kg. It is tested here in a form compliant with the very latest European emissions standards (Euro 6d-temp), with selective catalyst reduction, lean NOx trap and a diesel particulate filter. In the Clean Air tests, the car generally performs well. Pollutant emissions are well controlled except for oxides of nitrogen which are high in the high-load test. Still, a Clean Air Index of 7.3 is a creditable result. However, the A7 50 TDI gets an index of only 2.5 for Energy Efficiency. Overall, impressive mitigation of pollutant emissions is compromised by modest energy efficiency.

Year of Publication 2019	Tested Car WAUZZZF22KN00XXXX	Emissions Class Euro 6d-Temp
Mass 2146 kg	Engine Size 2967 cc	Engine Power/Torque 210 kW / 620 Nm
Tyres 255/40 R20	Published CO_2 196 g/km	

green ncap

Think before you print

2019

BMW i3

4x2

10.0 /10

Clean Air Index

8.5 /10

Energy Efficiency Index

10.0 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
9.0/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
9.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

With no combustion engine, no pollutants are emitted in the tests and the car scores maximum points.

8.5 /10 Energy Efficiency Tests

	Laboratory test	Energy		
10.0/10	Cold Test*		→	**14.9 kWh**/100km
3.0/3	Warm Test#		→	**14.5 kWh**/100km
3.0/3	Eco Mode#		→	**12.9 kWh**/100km
3.0/3	Sport Mode#		→	**14.5 kWh**/100km
10.0/10	Highway#		→	**19.8 kWh**/100km

Consumption	Electrical energy
Average consumption	**15.3 kWh**/100km
Worst-case consumption	**19.8 kWh**/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

The i3 is rated as good for energy efficiency, with an average electrical energy consumption of 15.3kWh/100km across the lab tests.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	●
Warm Test#	●
Eco Mode#	●
Sport Mode#	●
Highway#	●

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

BMW has used weight-saving carbon-fibre technology to keep the i3 at a trim 1270kg, although its 75kW electric motor and battery pack limits the weight-loss that can be achieved. Electric motors deliver a high torque, so despite its modest power, the i3 has a hefty 250Nm of torque. Local pollutant emissions are zero, of course, as no fuel is burned during the tests, and the i3 scores a maximum 10 in the Clean Air Index. Energy Efficiency is also very good, with consumption not exceeding 20kWh/100km in any of the tests.
In an additional test, performed for information only, consumption was as low as 10.2kWh/100km with the car in "ECO PRO +" mode, in which its maximum speed is limited to 90km/h. Of course, emissions of carbon dioxide are zero. Overall, the i3 demonstrates that full electric propulsion currently offers the greenest mode of transport around.

Year of Publication 2019	Tested Car KMHC751HFHU01XXXX	Emissions Class Euro 6b
Mass 1270 kg	Engine Size n.a.	Engine Power/Torque 75 kW / 250 Nm
Tyres 155/70 R19	Published CO_2 0 g/km	

green ncap

Think before you print

2019

BMW X1

18D, 4x2 manual

9.4 /10

Clean Air Index

5.8 /10

Energy Efficiency Index

9.4 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
8.7/9	Cold Test*	●	●	●	●
2.7/3	Warm Test#	●	●	●	●
2.7/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
9.0/9	Highway#	●	●	●	●
	Road test				
6.5/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

The X1 controls all pollutant emissions well or adequately in all tests, including the high-load highway test and in the on-road drive.

5.8 /10 Energy Efficiency Tests

	Laboratory test	Energy
7.5/10	Cold Test*	
2.3/3	Warm Test#	
2.3/3	Eco Mode#	
2.3/3	Sport Mode#	
5.3/10	Highway#	

	Consumption	Fuel
	Average consumption	5.5 l/100km
	Worst-case consumption	6.4 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

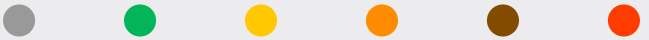
Energy efficiency is generally adequate but is rated as marginal for the high-load highway test.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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



Our verdict

BMW's small off-roader is tested here with the in its 18d variant. The 4-cylinder diesel has a 'lean NOx trap' in addition to its SCR catalyst and diesel particulate filter. These contribute to good control of pollutant emissions in all of the tests, including the high-load highway test and the on-road drive and leading to an excellent Clean Air Index of 9.4, nearly full marks. The X1 narrowly misses a four-star rating, its Energy Efficiency Index of 5.8 just below that threshold. The results of its energy efficiency tests are mostly adequate, with a marginal result in the highway test. Overall, the car technology used to deliver low pollutant emissions does not overly compromise energy efficiency and the car gets a creditable three-star rating.

Year of Publication 2019	Tested Car WBAJH52030EE1XXXX	Emissions Class Euro 6d-Temp
Mass 1604 kg	Engine Size 1995 cc	Engine Power/Torque 110 kW / 350 Nm
Tyres 225/55 R17	Published CO_2 121 g/km	

2019

Fiat Panda

0.9 Twinair, 4x2 manual

0.0 /10

Clean Air Index

6.0 /10

Energy Efficiency Index

0.0 /10

Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
0.0/9	Cold Test*				
0.0/3	Warm Test#				
0.0/3	Eco Mode#				
0.0/3	Sport Mode#				
0.0/9	Highway#				

Road test

0.0/7	On-Road Drive*				

Robustness

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

In this Euro 6b form, the Panda struggles to control particulate number. In all tests, emissions of this pollutant are sufficiently high that no points are scored.

6.0 /10 Energy Efficiency Tests

	Laboratory test	Energy
7.9/10	Cold Test*	
2.6/3	Warm Test#	
2.6/3	Eco Mode#	
2.6/3	Sport Mode#	
4.8/10	Highway#	

Consumption	Fuel
Average consumption	5.9 l/100km
Worst-case consumption	7.6 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

The Panda demonstrates adequate energy efficiency in all of the lab tests except the high-load highway test where efficiency is marginal.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

The third-generation Panda was introduced by FIAT in 2011 and is tested here as the 62.5kW, two-cylinder TwinAir. With a displacement of just 875cc, the turbocharged engine is equipped only with a three-way catalyst to reduce pollutant emissions, enough to meet Euro 6 emissions standards when tested using the previous test drive-cycle but not the latest WLTC (Worldwide-harmonized Light-vehicle Test Cycle) of Euro 6d-temp. When tested against Green NCAP's more demanding procedures and limits, emissions of particulates and carbon monoxide were high and the Panda scored no points in any of the Clean Air tests. Control of other pollutant emissions was at least marginal and was adequate or good in some of the cycles. The Panda scored much better for energy efficiency, with an index of 6.0. Energy efficiency was adequate in most tests and marginal in the high-load highway test. Overall, the Panda in this Euro 6b form is let down by high particulate and carbon monoxide emissions.

Year of Publication 2019	Tested Car ZFA31200003A1XXXX	Emissions Class Euro 6b
Mass 1121 kg	Engine Size 875 cc	Engine Power/Torque 62.5 kW / 145 Nm
Tyres 175/65 R14	Published CO_2 99 g/km	

2019

Ford Fiesta

1L Ecoboost, 4x2 manual Euro 6b

1.1 /10

Clean Air Index

6.6 /10

Energy Efficiency Index

1.1 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
0.0/9	Cold Test*				
0.5/3	Warm Test#				
0.3/3	Eco Mode#				
0.3/3	Sport Mode#				
0.0/9	Highway#				

Road test

2.6/7	On-Road Drive*				

Robustness

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

In this Euro 6b form, the Fiesta scores poorly in many of the tests. Particulate number is high and, in the high-load highway test, emissions of carbon monoxide and oxides of nitrogen are also poor.

6.6 /10 Energy Efficiency Tests

	Laboratory test	Energy
5.9/10	Cold Test*	
1.9/3	Warm Test#	
1.9/3	Eco Mode#	
1.9/3	Sport Mode#	
3.5/10	Highway#	

Consumption	Fuel
Average consumption	5.7 l/100km
Worst-case consumption	6.8 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is adequate in the laboratory tests except for the high-load highway test where efficiency is rated as marginal.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

Ford's ever-popular supermini, the Fiesta, has been tested here with the 1.0 EcoBoost engine which complies with Euro 6 emissions levels when tested using the previous test method but not against the latest WLTC (Worldwide-harmonized Light-vehicle Test Cycle) of Euro 6d-temp. The engine has no particulate filter and struggles with high emissions of this pollutant in all of the lab tests. Very few points are scored in the cold, warm, eco and sports mode tests as a result of particulate emissions and, in the higher-load highway test, other pollutants are also significantly increased, leading to poor performance in the Clean Air Index. On the road, emissions values are similar to those measured in the lab and particulate emissions are actually slightly reduced. The car scores much better for Energy Efficiency, with adequate or marginal performance and an index value of 6.6. All in all, an efficient engine is let down by the lack of a particulate filter, leading to high emissions of this pollutant.

Year of Publication 2019	Tested Car VF0JXXGAHJHR6XXXX	Emissions Class Euro 6b
Mass 1296 kg	Engine Size 998 cc	Engine Power/Torque 74 kW / 174 Nm
Tyres 195/55 R16	Published CO_2 97 g/km	

2019

Ford Fiesta

1L Ecoboost, 4x2 manual Euro 6d-Temp

8.0 /10

Clean Air Index

4.4 /10

Energy Efficiency Index

Clean Air Tests

8.0 /10

	Laboratory test	HC	CO	NO_x	PN
7.4/9	Cold Test*	●	●	●	●
2.7/3	Warm Test#	●	●	●	●
2.7/3	Eco Mode#	●	●	●	●
2.7/3	Sport Mode#	●	●	●	●
5.0/9	Highway#	●	●	●	●
	Road test				
6.4/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

In updated Euro 6d-temp form, the Fiesta shows much better control of pollutant emissions than the earlier Euro 6b-compliant version. Particulate number is marginal in the cold test and poor in the high-load highway test but, otherwise, pollutants are well or adequately controlled.

4.4 /10 Energy Efficiency Tests

	Laboratory test	Energy
5.9/10	Cold Test*	
1.9/3	Warm Test#	
1.9/3	Eco Mode#	
1.9/3	Sport Mode#	
3.5/10	Highway#	

	Consumption	Fuel
	Average consumption	**7.1 l**/100km
	Worst-case consumption	**8.3 l**/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

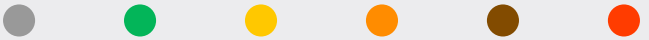
Energy efficiency is marginal in all of the laboratory tests.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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



Our verdict

The Fiesta is tested here with the latest version of the 1.0 turbocharged EcoBoost engine. This version complies with the latest emissions level (Euro 6d-temp) and, as well as a three-way catalyst, employs a particulate filter to reduce emissions of this pollutant. In general, this works well: pollutant emissions are well controlled with good results for hydrocarbons, oxides of nitrogen and carbon monoxide. Performance is generally marginal in terms of particulate emissions and is poor in the high-load highway test, but the low emissions of other pollutants contribute to a high Clean Air Index. Performance on the road is similar to that in the laboratory tests. However, the particulate filter seems to have a negative effect on energy efficiency and fuel consumption. An average measured consumption of 7.1l/100km is quite high for an engine of this size and type. Overall, the engine achieves a reasonable compromise between efficiency and minimizing pollutant emissions.

Year of Publication 2019	Tested Car WF0JXXGAHJJU2XXXX	Emissions Class Euro 6d-Temp
Mass 1293 kg	Engine Size 998 cc	Engine Power/Torque 92 kW / 170 Nm
Tyres 205/45 R17	Published CO_2 136 g/km	

green ncap

HYUNDAI

2019

Hyundai Ioniq

Electric, 4x2

10.0 /10

Clean Air Index

8.5 /10

Energy Efficiency Index

10.0 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
9.0/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
9.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

With no combustion engine, and no fuel being burned, the Ioniq emits no pollutant emissions and scores maximum points in these 'tank to wheel' tests.

8.5 /10 Energy Efficiency Tests

	Laboratory test	Energy		
10.0/10	Cold Test*		→	**13.2 kWh**/100km
3.0/3	Warm Test#		→	**12.7 kWh**/100km
3.0/3	Eco Mode#		→	**12.7 kWh**/100km
3.0/3	Sport Mode#		→	**12.7 kWh**/100km
10.0/10	Highway#		→	**19.3 kWh**/100km

Consumption	Electrical energy
Average consumption	**14.1 kWh**/100km
Worst-case consumption	**19.3 kWh**/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is good in all of the tests, with an average consumption of electrical energy of 14.1kWh/100km.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	●
Warm Test#	●
Eco Mode#	●
Sport Mode#	●
Highway#	●

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

Hyundai's all-electric small family car, the Ioniq, uses a 88kW motor as its propulsion unit. Local pollutant emissions are zero, of course, as no fuel is burned during the tests, and the Ioniq scores a maximum 10 in the Clean Air Index. Likewise, emissions of carbon dioxide, an important greenhouse gas, are zero and Energy Efficiency is very good, with consumption not exceeding 20kWh/100km in any of the tests, although the high-load highway test makes noticeably greater demands than the others. The Ioniq demonstrates that full electric propulsion is the greenest means of transportation currently available.

Year of Publication 2018	Tested Car KMHC751HFHU01XXXX	Emissions Class Euro 6b
Mass 1475 kg	Engine Size n.a.	Engine Power/Torque 88 kW / 295 Nm
Tyres 205/55 R16	Published CO_2 0 g/km	

Mercedes-Benz

2019

Mercedes Benz A-Class

A200, 4x2 auto

9.4 /10

Clean Air Index

5.2 /10

Energy Efficiency Index

9.4 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
8.1/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
8.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Control of pollutant emissions is good or adequate in all of the tests except for oxides of nitrogen in the high-load highway test, where the result is marginal.

5.2 /10 Energy Efficiency Tests

	Laboratory test	Energy
6.1/10	Cold Test*	
2.1/3	Warm Test#	
2.1/3	Eco Mode#	
1.8/3	Sport Mode#	
5.7/10	Highway#	

	Consumption	Fuel
	Average consumption	6.7 l/100km
	Worst-case consumption	7.1 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is adequate or marginal in all of the laboratory tests.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

he car tested here is the A200, compliant with the latest European emissions legislation (Euro 6d-temp). Its 1.3 litre turbocharged petrol engine uses a three-way catalyst and a particulate filter to control emissions. This works well for the assessment of Clean Air and an index of 9.4 is a very creditable achievement. Control of pollutant emissions is good in the laboratory tests, with some marginal and adequate performance in the higher-load highway cycle. On the road, the same good control is seen as was demonstrated in the lab, the car scoring well for its control of pollutants. For energy efficiency, the car achieves an index of 5.2 out of ten, leading to a creditable overall rating of three stars. The eco mode reduces energy consumption by nine percent compared to the standard conditions. Overall, a very clean car is limited to a three-star rating by average energy efficiency.

Year of Publication 2019	Tested Car WDD1770871J006292	Emissions Class Euro 6d-Temp
Mass 1425 kg	Engine Size 1333 cc	Engine Power/Torque 120 kW / 250 Nm
Tyres 225/45 R18	Published CO_2 143 g/km	

SUBARU

2019

Subaru Outback

2.5 i, 4x4 CVT

6.5 /10

Clean Air Index

1.8 /10

Energy Efficiency Index

6.5 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
6.8/9	Cold Test*	●	●	●	●
2.8/3	Warm Test#	●	●	●	●
2.8/3	Eco Mode#	●	●	●	●
2.8/3	Sport Mode#	●	●	●	●
0.0/9	Highway#	●	●	●	●
	Road test				
6.9/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

● n.a. ● good ● adequate ● marginal ● weak ● poor

Comments

Control of pollutant emissions is generally good or adequate. However, in the high-load highway test, emissions of carbon monoxide and of particulate are sufficiently high that no points are scored in that test.

1.8 /10 Energy Efficiency Tests

	Laboratory test	Energy
3.2/10	Cold Test*	
1.0/3	Warm Test#	
1.0/3	Eco Mode#	
1.0/3	Sport Mode#	
0.0/10	Highway#	

Consumption	Fuel
Average consumption	8.9 l/100km
Worst-case consumption	10.5 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is, at best, marginal. In the cold test, efficiency is rated as weak. In the high-load highway test, efficiency is poor and no points are scored.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

The Subaru Outback is tested here with the flat-four, 2.5 litre engine and "Lineartronic" – a continuously variable transmission (CVT). The car has a three-way catalyst but no particulate filter and complies with the latest Euro 6d-temp emissions standards. In general, control of pollutant emissions is adequate or good. However, in the cold test, emissions of carbon monoxide and particulate emissions are elevated and, in the high-load test, they are very high, probably as a result of fuel enrichment in such load conditions. Nevertheless, the car achieves a Clean Air Index of 6.5. Its Energy Efficiency Index, however, is just 1.8 and this limits the car to a one-star rating. Energy consumption is high in all of the tests but especially so in the high-load test, for which no points are scored. Overall, the car performs reasonably for in the Clean Air assessment, but at the expense of energy/fuel efficiency.

Year of Publication 2019	Tested Car JF1BS9LC2JG15XXXX	Emissions Class Euro 6d-Temp
Mass 1695 kg	Engine Size 2500 cc	Engine Power/Torque 129 kW / 235 Nm
Tyres 225/60 R18	Published CO_2 166 g/km	

2019

Volvo XC40

T5 2.0, 4x4 auto

6.8 /10

Clean Air Index

2.3 /10

Energy Efficiency Index

6.8 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
7.3/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
0.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

The XC40 scores well in most tests for pollutant control.
However, in the high-load highway test, emissions of carbon monoxide are sufficiently high that all points are lost.

2.3 /10 Energy Efficiency Tests

	Laboratory test	Energy
4.1/10	Cold Test*	
1.4/3	Warm Test#	
1.4/3	Eco Mode#	
0.9/3	Sport Mode#	
0.0/10	Highway#	

	Consumption	Fuel
	Average consumption	**8.6 l**/100km
	Worst-case consumption	**10.5 l**/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

Energy efficiency is, at best, marginal. In 'sport' mode, efficiency is weak and, in the high-load highway test, it is rated as poor and no points are scored.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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

n.a. good adequate marginal weak poor

Our verdict

Volvo's small off-roader, the XC40, is tested here as the T5 variant, with a two-litre petrol engine and automatic gearbox. The car has a three-way catalyst and a gasoline particulate filter, and these help it achieve a Clean Air Index of 6.8. In the lab tests, pollutant emissions are generally well controlled but the high-load highway test results in poor control of particulate number, limiting the car's Clean Air Index. However, the star rating is determined by the car's performance in Energy Efficiency and, here, it achieves an index of only 2.3. Energy efficiency is marginal in most of the lab tests and poor in the high-load cycle. Overall, the car achieves reasonable control of pollutant emissions but is let down by its poor energy efficiency.

Year of Publication 2019	Tested Car YV1XZ13BCJ200XXXX	Emissions Class Euro 6d-Temp
Mass 1802 kg	Engine Size 1969 cc	Engine Power/Torque 182 kW / 350 Nm
Tyres 235/55 R18	Published CO_2 194 g/km	

2019

VW Golf

1.6 TDI, 4x2 manual

3.1 /10

Clean Air Index

6.7 /10

Energy Efficiency Index

3.1 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
0.0/9	Cold Test*	●	●	●	●
1.7/3	Warm Test#	●	●	●	●
1.7/3	Eco Mode#	●	●	●	●
1.7/3	Sport Mode#	●	●	●	●
0.0/9	Highway#	●	●	●	●
	Road test				
5.5/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

● n.a. ● good ● adequate ● marginal ● weak ● poor

Comments

The Golf demonstrates poor control of oxides of nitrogen in all of the laboratory tests. In the high-load highway test, emissions of this pollutant are sufficiently high that no points are scored.

6.7 /10 Energy Efficiency Tests

	Laboratory test	Energy
8.5/10	Cold Test*	
2.6/3	Warm Test#	
2.6/3	Eco Mode#	
2.6/3	Sport Mode#	
6.2/10	Highway#	

	Consumption	Fuel
	Average consumption	5 l/100km
	Worst-case consumption	6 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

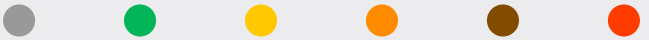
Energy efficiency is adequate in most of the tests and is rated as marginal in the high-load highway test.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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



Our verdict

The VW Golf has long been considered the benchmark against which other cars in its class are judged. Here, it is tested as a 1.6 TDI, meeting the requirements of Euro-6 when tested using the previous drive-cycle and not the latest WLTC (Worldwide-harmonized Light-vehicle Test Cycle) of Euro 6d-temp. Equipped with lean NOx trap and a diesel particulate filter, the car nevertheless struggles to control its NOx emissions, which are high in all of lab tests and especially so in the high-load highway cycle. Values are marginal in the on-road drive. Other pollutants are well controlled. Energy efficiency is generally adequate and, in this regard, the Golf achieves a very creditable index of 6.7. Overall, the car achieves good energy efficiency but at the expense of its NOx emissions, which severely limit its Clean Air score.

Year of Publication 2019	Tested Car WVWZZZAUZHP30XXXX	Emissions Class Euro 6b
Mass 1390 kg	Engine Size 1598 cc	Engine Power/Torque 81 kW / 250 Nm
Tyres 225/45 R17	Published CO_2 109 g/km	

2019

VW Up!

GTI, 4x2 manual

9.2 /10

Clean Air Index

6.7 /10

Energy Efficiency Index

9.2 /10 Clean Air Tests

	Laboratory test	HC	CO	NO_x	PN
8.3/9	Cold Test*	●	●	●	●
3.0/3	Warm Test#	●	●	●	●
3.0/3	Eco Mode#	●	●	●	●
3.0/3	Sport Mode#	●	●	●	●
7.0/9	Highway#	●	●	●	●
	Road test				
7.0/7	On-Road Drive*	●	●	●	●
	Robustness				

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

The up! shows good or adequate control of pollutant emissions in most of the tests. In the high-load highway test, control of particulate number is marginal and that of carbon monoxide is weak.

6.7 /10 Energy Efficiency Tests

	Laboratory test	Energy
8.8/10	Cold Test*	
2.7/3	Warm Test#	
2.7/3	Eco Mode#	
2.7/3	Sport Mode#	
5.7/10	Highway#	

Consumption	Fuel
Average consumption	5.6 l/100km
Worst-case consumption	7.1 l/100km

* Adapted regulatory test # Additional Green NCAP tests

n.a. good adequate marginal weak poor

Comments

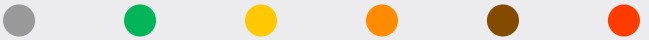
The up! has adequate energy efficiency in most tests. In the high-load highway test, efficiency is rated as marginal.

Additional Information

Greenhouse Gases **	CO_2
Cold Test*	
Warm Test#	
Eco Mode#	
Sport Mode#	
Highway#	

* Adapted regulatory test # Additional Green NCAP tests

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



Our verdict

The up! tested here is the GTI with a one-litre turbocharged engine, equipped with a three-way catalyst and a gasoline particulate filter to control pollutant emissions. The Clean Air Index of 9.2 shows that these measures work well. In the high-load highway test, control of carbon monoxide is weak, but in the other lab tests, and during the on-road drive, control of pollutant emissions is almost entirely good. Energy efficiency is generally adequate in the lab tests but is marginal in the high-load test. Overall, the up! GTI achieves a very creditable four-star rating with good energy efficiency and pollutant control.

Year of Publication 2019	Tested Car WVWZZZAAZJD21XXXX	Emissions Class Euro 6b
Mass 1101 kg	Engine Size 999 cc	Engine Power/Torque 85 kW / 200 Nm
Tyres 195/40 R17	Published CO_2 128 g/km	