

# FIAT



2022

## FIAT 500

Hybrid 1.0 GSE petrol FWD manual



4.5   
/10

Clean Air  
Index

6.3   
/10

Energy Efficiency  
Index

5.2   
/10

Greenhouse Gas  
Index

4.5  
/10



## Clean Air Tests



### Laboratory Test

	NMHC	NO <sub>x</sub>	NH <sub>3</sub>	CO	PN
<b>5.0/10</b> Cold Test	●	●	●	●	●
<b>5.5/10</b> Warm Test	●	●	●	●	●
<b>0.0/10</b> Highway	●	●	●	●	●
<b>3.9/10</b> Cold Ambient Test	●	●	●	●	●



### Road Test

<b>5.7/10</b> On-Road Drive	●	●	●	●	●
<b>2.4/5</b> On-Road Short Trip	●	●	●	●	●
<b>3.9/8</b> On-Road Heavy Load	●	●	●	●	●
<b>3.2/5</b> On-Road Light Load	●	●	●	●	●
<b>2.0/2</b> Congestion	●	●	●	●	●



n.a.



good



adequate



marginal



weak



poor

### Comments

The FIAT 500 performs moderately in the standard test drives and increases its performance slightly during the additional robustness testing. The biggest challenge overall are particulates – the vehicle is not equipped with a gasoline particulate filter and the emissions are close to the upper limit. The exceedance of CO, NH<sub>3</sub> and particle emission thresholds sets the score of the Highway Test to zero. The small FIAT scores the maximum points for clean air during the Congestion simulation, as NO<sub>x</sub> emission remain close to zero.

# Energy Efficiency Tests



## Laboratory Test

## Energy

**6.8/10** Cold Test



**6.9/10** Warm Test



**5.7/10** Highway



**5.8/10** Cold Ambient Test



## Consumption

## Driving Range

**Average**

**5.2** l/100 km

**680** km

**Worst-case**

**6.2** l/100 km

**565** km



n.a.



good



adequate



marginal



weak



poor














## Comments

The FIAT 500 is a compact and light vehicle with a 3-cylinder engine. It scores above average in all tests for energy efficiency, even in the  $-7^{\circ}\text{C}$  Cold Ambient lab test. This mild-hybrid uses less than 5 litres of petrol for 100 km during both the Cold and the Warm Laboratory Tests. The standard real world test resulted in 5.1 l/100 km, whereas the aggressive On-Road Heavy Load Test pushed the consumption to above 6.2 litres. The best case is found in the On-Road Light Load Test – 4.6 l/100 km.

# 5.2

/10

## Greenhouse Gases Tests

 <u>Greenhouse gases</u>	CO <sub>2</sub>	N <sub>2</sub> O	CH <sub>4</sub>
5.8/10 Cold Test			
6.0/10 Warm Test			
4.5/10 Highway			
4.7/10 Cold Ambient Test			



n.a.



good



adequate



marginal



weak



poor

### Comments

The Greenhouse Gas Index is based on a Well-to-Wheel+ approach, meaning that the greenhouse gas emissions related to the supply of the energy are added to the tailpipe emissions. The test vehicle emits about 110 g CO<sub>2</sub>/km in the Cold and Warm Laboratory WLTC+ Tests and 130 g CO<sub>2</sub>/km in the BAB130 highway and in the Cold Ambient Tests. With upstream greenhouse gas emissions of approx. 30 g CO<sub>2</sub>-eq./km on top, that leads to moderate but credible results for a petrol vehicle. The emissions of N<sub>2</sub>O and CH<sub>4</sub> are barely measurable and grant the vehicle bonus points for robust control.

## Our Verdict

August 2023: The result of this car has been updated. Previously reported Ammonia (NH<sub>3</sub>) values were incorrect owing to a technical error with the equipment at the test laboratory and a correction has been applied.

The tested FIAT 500 is a compact car with a naturally aspirated 3-cylinder petrol engine. It uses quite a small hybrid battery with only 11 Ah capacity (at 12 V). The overall system manages to keep the consumption at around 5.2 l/100 km, close to the officially reported value. The vehicle could make use of more robust and efficient exhaust aftertreatment, especially for ammonia (NH<sub>3</sub>) and CO in high power demand phases, as well as for particle number. Here, a gasoline particle filter would help boost up the result. The total score of 5.2 represents an average performance and leaves potential for improvement. Overall, the vehicle is awarded 3 Green stars.

## Disclaimer [↗](#)

## Specifications

Publication Date	Tested Car	Tyres	Emissions Class
10 2022	ZFA3120000JE6xxxx	185/55 R15	Euro 6d AP
Mass	Engine Size	Power/Torque	Declared CO <sub>2</sub>
1,029 kg	999 cc	51 kW/92 Nm	120 g/km
Declared Battery Capacity	Declared Driving Range	Declared Consumption	
0.13 kWh	n.a.	5.3 l/100 km	



Think before you print