



HYUNDAI



2022

Hyundai BAYON

1.0 T-GDI 48V petrol FWD automatic



3.8
/10



Clean Air
Index

5.4
/10



Energy Efficiency
Index

4.1
/10



Greenhouse Gas
Index



Laboratory Test

3.5/10 Cold Test

NMHC



NO_x



NH₃



CO



PN



6.6/10 Warm Test



0.0/10 Highway



Cold Ambient Test

Does not qualify for additional robustness testing



Road Test

5.6/10 On-Road Drive



1.6/5 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

The Hyundai BAYON fails to impress with its control of pollutants. Its emissions of particles are close to the upper thresholds in all tests, while CO is greatly elevated in the Highway Test, decreasing the points scored in this test. With NH₃ emissions also higher than the upper threshold, the BAYON fails to score any points here, because the gross exceedance of CO sets the whole motorway test results to zero. This leads to a mere 3.8 out of 10 points in the Clean Air assessment. On the plus side, NO_x are managed quite well, even in real world driving, with 3.5 points out of 4 in the on-road drive test.

	Laboratory Test	Energy
6.3/10	Cold Test	
6.5/10	Warm Test	
3.3/10	Highway	
Cold Ambient Test		Does not qualify for additional robustness testing

	Consumption	Driving Range
Average	6.0 l/100 km	685 km
Worst-case	7.7 l/100 km	519 km



n.a.



good



adequate



marginal



weak



poor

Comments

The mild hybrid system ensures reasonable results in the WLTC+ tests. Once again, it is in the Highway Test that the BAYON loses most points. A bigger hybrid battery combined with a more powerful electric drivetrain could probably support the small three-cylinder engine better.

4.1 Greenhouse Gases Tests

/10



Greenhouse gases

CO₂

N₂O

CH₄

5.2/10 Cold Test



5.5/10 Warm Test



1.8/10 Highway



Cold Ambient Test

Does not qualify for additional robustness testing



n.a.



good



adequate



marginal



weak



poor

Comments

The Hyundai BAYON delivers the CO₂ levels indicated by its type approval. Indeed, in both WLTC+ cycles, the car produces even less CO₂ emissions than declared. Unfortunately, the addition of greenhouse gases for fuel production and supply (Well-to-Tank+) pushes the BAYON down to a moderate 4.1 out of 10 points. Methane and laughing gas score all possible points in all tests, helping the BAYON to avoid a negative result in highway driving.

Our Verdict

August 2023: The result of this car has been updated. Previously reported Ammonia (NH₃) values were incorrect owing to a technical error with the equipment at the test laboratory and a correction has been applied.

The Hyundai BAYON 1.0 T-GDI 48V scores 2½ stars overall despite having a small engine with an even smaller electrical boost by its 48V mild hybrid system. This is not enough to balance out the problems of the three-cylinder engine especially under constant high load. The BAYON displays typical advantages and disadvantages of a petrol engine: well managed NO_x emissions and sometimes high CO emissions under high load. The car is equipped with a GPF, yet in all tests it produces particles that are close to exceeding the limits at which positive points are scored.

Disclaimer

Specifications

Publication Date 06 2022	Tested Car NLHBR81GGNZ04 _{xxxx}	Tyres 205/55 R17	Emissions Class Euro 6d AP
Mass 1,194 kg	Engine Size 998 cc	Power/Torque 88 kW/200 Nm	Declared CO ₂ 120 g/km
Declared Battery Capacity n.a.	Declared Driving Range n.a.	Declared Consumption 5.3 l/100 km	



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