

MAZDA CX-80

E-SKYACTIV D DIESEL AWD AUTOMATIC



Sustainability Rating

2025



30%



**Clean
Air**

5.3 /10



**Energy
Efficiency**

3.3 /10



**Greenhouse
Gases**

0.4 /10

Driving Experience



**Consumption
& Range**

● ADEQUATE



**Cold Winter
Performance**

● NOT APPLICABLE



**Charging
Capability**

● NOT APPLICABLE

Our verdict

Tested here is the diesel Mazda CX-80 e-Skyactiv D. This is a large SUV of 2.1 tonnes empty mass and low-level powertrain hybridisation. In Green NCAP's tests the vehicle achieved only 2 stars and could not impress with high sustainability performance, although in light of its type, interested consumers are advised to compare it to other big SUV competitors.

- › The CX-80 controls exhaust emissions well but has unexpectedly high particle emissions and low scores for tyre and brake abrasion due to the high weight and limited recuperation potential.
- › While production is energy-intensive, the diesel engine offers reasonable fuel consumption for its class, making it more efficient than a petrol equivalent.
- › Total life cycle emissions are high (292 g CO₂-eq./km), leaving the vehicle with a very low score in the Greenhouse Gas Index.

Disclaimer

Think before you print



Comments

The exhaust emissions are adequately and robustly controlled in all test scenarios, but the particle emissions are generally rather high, which is surprising, given that they are reduced very efficiently in most modern diesel vehicles. Due to its mass and limited possibilities to reduce the use of the friction brakes, the scores for tyre and brake abrasion are low.

Exhaust emissions

Exhaust pollutant emissions are produced from combustion engines. Although current emission legislation is very strict, this type of emission directly affects air quality, and not all vehicles perform equally well. [Read more](#)

ADEQUATE 6.9 /10

In laboratory

Green NCAP performs a wide range of tests on cars in the laboratory. This is the best way to ensure controlled conditions and guarantee that all cars are tested in the same way, making their results comparable. [Read more](#)

ADEQUATE 6.6 /10

	NMHC	NO _x	NH ₃	CO	PN	PM	Score
Legal test (WLTP)	●	●	●	●	●	●	4.7 /8
Warm weather	●	●	●	●	●	●	7.5 /10
Highway	●	●	●	●	●	●	6.9 /10
Winter cold start	●	●	●	●	●	●	5.9 /10
Winter warm start	●	●	●	●	●	●	7.7 /10

On road

An on-road driving test , using portable emissions measuring equipment complements Green NCAP's laboratory tests. [Read more](#)

ADEQUATE 7.1 /10

	NMHC	NO _x	NH ₃	CO	PN	PM	Score
Real-world mixed drive	●	●	●	●	●	●	6.8 /10
Short city trip	●	●	●	●	●	●	7.8 /10
Congestion	●	●	●	●	●	●	1.0 /2

● good ● adequate ● marginal ● weak ● poor ● not applicable



5.3 /10

Non-exhaust emissions

Driving a vehicle also produces emissions different from those of the exhaust pipe. Green NCAP evaluates vehicle properties that contribute to tyre and brake abrasion.

MARGINAL 3.5 /10

Tyre wear

Tyre abrasion releases small particles during driving, and some vehicle properties have major impact on it. Heavier vehicles, wheel alignment causing increased slip angle, and aggressive acceleration responses all increase tyre wear and particle emissions. [Read more](#)

MARGINAL 2.7 /6

	Result	Score
Influence of mass	●	0.7 /3
Wheel alignment	●	1.0 /1
Accelerator response	●	1.0 /2

Brake wear

Brake dust, produced by friction brakes, can be mitigated through filters, enclosed brake systems (like drums), or by reducing friction brake use with regenerative braking in electrified vehicles. Containment keeps dust inside the system, while recuperation lowers brake wear. However, heavier vehicles still generate more brake abrasion due to their greater stopping demands. [Read more](#)

WEAK 1.5 /6

	Result	Score
Brake dust mitigation	●	0.0 /4
Brake dust containment	●	0.0 /6
Recuperative braking - warm test	●	1.5 /6



● good ● adequate ● marginal ● weak ● poor ● not applicable



5.3 /10

Additional Life Cycle Assessment information

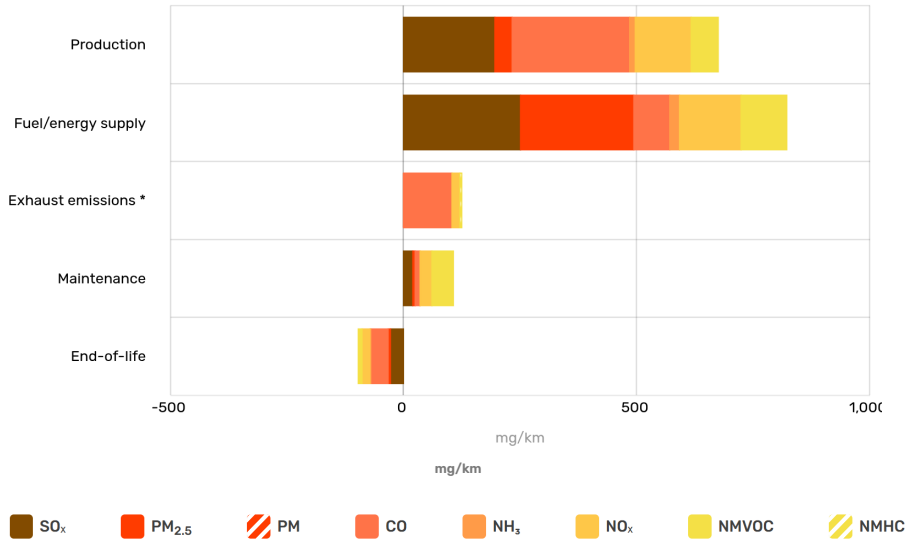
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime, 'from cradle to grave'. In this section, pollutants are estimated in the various stages of a vehicle's life other than use. The chart also displays the measured emissions related to usage, which are taken as an average from the tests and are scored separately in the 'Exhaust emissions' part above. The end-of-life approach uses results in negative values because the benefit of materials recovery and recycling exceeds the effort of obtaining and processing virgin raw materials.

WEAK

2.4 /10

Pollutants

Most of the vehicle exhaust pollutant species are also emitted in others life cycle phases. These are health- and nature-damaging compounds, the amount of which should be reduced as well.



* Exhaust emissions are not contributing to the score in Additional Life Cycle Assessment information because they are scored in the Exhaust emissions section above



Energy Efficiency

3.3 /10

Comments

Although it requires considerable amounts of primary energy to produce a vehicle that big, most of the life cycle energy demand is related to the direct diesel fuel usage. Although the consumption can reach 8.2 l/100 km in the Highway Test, the choice of a diesel over a petrol aggregate still seems good, as the fuel demand figures are quite reasonable for a car of this class.

Energy demand

MARGINAL

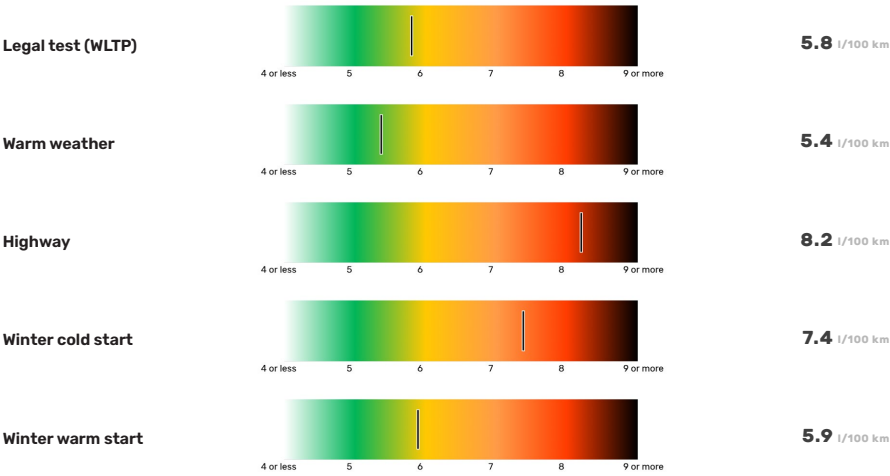
3.4 /10

Propulsion energy consumption in laboratory

WEAK

1.2 /10

The vehicle's measured consumption figures are displayed in the bar chart. The colour scheme positions the values relative to low and high figures in a typical range. The ranges are different for combustion engine and pure electric vehicles.



● good ● adequate ● marginal ● weak ● poor ● not applicable

Energy Efficiency

3.3 /10

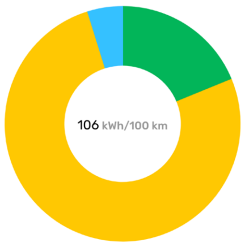
Additional Life Cycle Assessment information

GOOD ●

9.6 /10

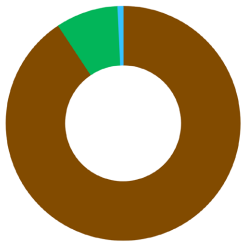
Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime 'from cradle to grave'. In this section, the total vehicle life cycle primary energy demand is displayed. The scoring does not consider the direct propulsion energy use, because it is scored separately in the 'Propulsion energy consumption in laboratory'.

Total LCA energy consumption



- Production & recycling 18.8%
- Battery production 0.0%
- Fuel/energy supply * 76.4%
- Maintenance 4.8%

Energy source share in total LCA consumption



- Fossil 90.7%
- Renewable 8.6%
- Other 0.7%

Direct propulsion energy share is not shown, it is included in 'Fuel/energy supply'.

Rolling resistance

Rated here is the vehicle's resistance to movement at low speeds. Different factors have an impact on it, but the most significant one is mass.

WEAK ●

0.8 /10



● good ● adequate ● marginal ● weak ● poor ● not applicable

Greenhouse Gases

0.4 /10

Comments

In its life cycle, the CX-80 is calculated to emit on average 172 g CO₂-eq./km directly on its tailpipe and additional 120 g CO₂-eq./km originating from the other LCA phases (vehicle production, diesel supply, etc.). This figure barely allows the large Mazda to score any points in the Greenhouse Gas Index.

Exhaust GHG emissions

Combustion of conventional fuels releases greenhouse gases at the vehicle's tailpipe. The most significant of these gases are the emissions of CO₂. Green NCAP's assessment considers methane (CH₄) and laughing gas (N₂O) as well. Together, these are counted with their global warming potential to a sum known as CO₂ equivalent.

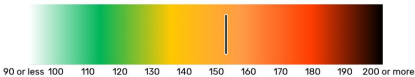
POOR

0.0 /10

In laboratory

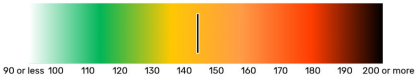
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Legal test (WLTP)



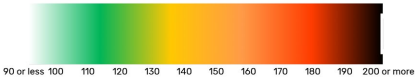
151.2 g CO₂-eq./km

Warm weather



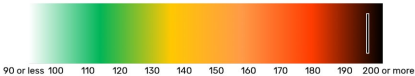
142.4 g CO₂-eq./km

Highway



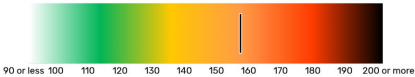
217.2 g CO₂-eq./km

Winter cold start



195.3 g CO₂-eq./km

Winter warm start



155.7 g CO₂-eq./km

Greenhouse Gases

0.4 /10

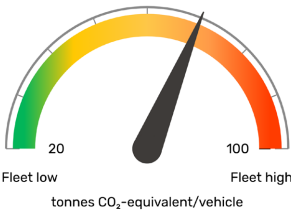
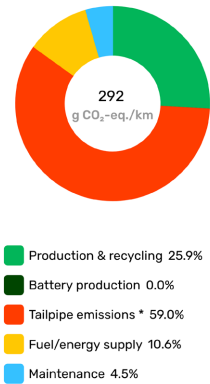
Additional Life Cycle Assessment information

Life Cycle Assessment (LCA) investigates the environmental impact of a car over its entire lifetime, 'from cradle to grave'. In this section, the total vehicle life cycle greenhouse gas emissions are displayed.

ADEQUATE

6.2 /10

Total LCA GHG emissions



Vehicle Life Cycle average emissions **70** (+/-)
(best **61** | worst **82**)

* The scoring does not consider the direct exhaust GHG emissions at the tailpipe, because they are scored separately in 'Exhaust GHG emissions' above.





Driving Experience



Consumption & Range

● ADEQUATE



Cold Winter Performance

● NOT APPLICABLE



Charging Capability

● NOT APPLICABLE

Green NCAP Comment

The Driving Experience evaluation of conventional vehicles focuses only on the performance in section 'Consumption and Range'. The Mazda CX-80 estimated real-world consumption figures are generally seen as adequate in most conditions – warm weather and cold winter, urban, rural, highway and mixed driving scenarios, and can even become 'good' in warm weather rural driving. The consumption readings on the board computer display are accurate.



Consumption & Range

ADEQUATE

Estimated actual consumption

ADEQUATE

What consumption can be expected in real world conditions?

In-laboratory measured consumption values are only partially representative of real-world use. Green NCAP's estimates aim at providing more realistic figures, which are based on measured results, modified by correction factors.

Conditions	Urban	Rural	Highway	Mixed	
Warm weather	7.6	4.2	6.4	6.1	l/100 km
Cold Winter	9.4	6.1	7.0	7.5	l/100 km

Accuracy of display

GOOD

Is the consumption figure on the display correct?



good adequate poor not applicable



Cold Winter Performance

NOT APPLICABLE ●



● good ● adequate ● poor ● not applicable



Charging Capabilities

NOT APPLICABLE ●



● good ● adequate ● poor ● not applicable

Specifications

Vehicle class
Large SUV

System power/torque
187 ^{kw}/550 ^{Nm}

Engine size
3,283 ^{cc}

Declared consumption
5.8 ^{l/100 km}

Declared driving range
Overall n.a.
City n.a.

Declared CO₂
151 ^{g/km}

Declared battery capacity
Usable (net) n.a.
Installed (gross) n.a.

Mass
2,136 ^{kg}

Heating concept
Waste heat

Tyres
235/50R20

Emissions class
Euro 6 EA

Tested car
JMZKL0HC90110xxxx

Publication date
09 2025

Also covered by this rating

Variants

MAZDA CX-80
e-Skyactiv D Homura diesel AWD automatic

MAZDA CX-80
e-Skyactiv D Homura Plus diesel AWD automatic

MAZDA CX-80
e-Skyactiv D Takumi Plus diesel AWD automatic

MAZDA CX-80
e-Skyactiv D Exclusive-Line diesel AWD automatic



