

How can I find out my car's Euro emissions standard?

The table below, reproduced from that [developed by the European Commission](#), shows the different Euro categories that apply to new vehicle models approved after a specific date. Every car sold up to a year after the dates below has to conform to the appropriate standards.

If your vehicle is older than any dates listed below (check with your manufacturer directly if you're not sure), it won't be classed as even a Euro 1 - meaning certain cities may charge or ban you from driving in them at certain times.

Emissions Standard	Applied to new passenger car approvals from	Applied to all new registrations from
Euro 1	1 July 1992	31 December 1992
Euro 2	1 January 1996	1 January 1997
Euro 3	1 January 2000	1 January 2001
Euro 4	1 January 2005	1 January 2006
Euro 5	1 September 2009	1 January 2011
Euro 6	1 September 2014	1 September 2015

If you have a newer vehicle, you can also [look up the emissions standard of your car and get a free vehicle valuation at the same time](#), courtesy of [RAC Cars](#) (your emission standard will appear at the end of the car description as part of the final step of your car valuation, indicated by the letters 'EU' in front of it).

Each Euro emission standard: a full breakdown

To find out what the different criteria cars have to hit to meet their Euro standard we have outlined each of the standards below.

Euro 1 (EC93)

Implementation date (new approvals): 1 July 1992

Implementation date (all new registrations): 31 December 1992

The first Europe-wide euro emissions standards were introduced in July 1992 and the regulations weren't anywhere near as stringent as they are today. That said, the fitment of catalytic converters became compulsory on all new cars, and Euro 1 required the switch to unleaded petrol.

Back then, only hydrocarbons and nitrogen oxide were tested, along with particulate matter in the case of diesel engines. Over the years, the regulations have become stricter and the limits lowered.

Euro 1 emissions standards (petrol)

CO: 2.72g/km

HC + NO_x: 0.97g/km

Euro 1 emissions standards (diesel)

CO: 2.72g/km

HC + NO_x: 0.97g/km

PM: 0.14g/km

Euro 2 (EC96)

Implementation date (new approvals): 1 January 1996

Implementation date (all new registrations): 1 January 1997

Euro 2 reduced the limits for carbon monoxide and the combined limit for unburned hydrocarbons and nitrogen oxide, as well as introducing different levels for petrol and diesel engines.

Euro 2 emissions standards (petrol)

CO: 2.2g/km

HC + NO_x: 0.5g/km

Euro 2 emissions standards (diesel)

CO: 1.0g/km

HC + NO_x: 0.7g/km

PM: 0.08g/km

Euro 3 (EC2000)

Implementation date (new approvals): 1 January 2000

Implementation date (all new registrations): 1 January 2001

Euro 3 split the hydrocarbons and nitrogen oxide limits for petrol and diesel engines, as well as adding a separate nitrogen oxide limit for diesel vehicles. The warm-up period was removed from the test procedure.

Euro 3 emissions standards (petrol)

CO: 2.3g/km

HC: 0.20g/km

NOx: 0.15g/km

Euro 3 emissions standards (diesel)

CO: 0.64g/km

HC + NOx: 0.56g/km

NOx: 0.50g/km

PM: 0.05g/km

Euro 4 (EC2005)

Implementation date (new approvals): 1 January 2005

Implementation date (all new registrations): 1 January 2006

Euro 4 emissions standards (petrol)

CO: 1.0g/km

HC: 0.10g/km

NOx: 0.08g/km

Euro 4 emissions standards (diesel)

CO: 0.50g/km

HC + NOx: 0.30g/km

NOx: 0.25g/km

PM: 0.025g/km

Euro 5

Implementation date (new approvals): 1 September 2009

Implementation date (all new registrations): 1 January 2011

The big news for Euro 5 was the introduction of particulate filters (DPFs) for diesel vehicles, along with lower limits across the board. For type approvals from September 2011 and new cars from January 2013, diesel vehicles were subject to a new limit on particulate numbers.

DPFs capture 99% of all particulate matter and are fitted to every new diesel car. Cars meeting Euro 5 standards emit the equivalent of one grain of sand per kilometre driven.

Euro 5 emissions standards (petrol)

CO: 1.0g/km

HC: 0.10g/km

NOx: 0.06g/km

PM: 0.005g/km (direct injection only)

Euro 5 emissions standards (diesel)

CO: 0.50g/km

HC + NOx: 0.23g/km

NOx: 0.18g/km

PM: 0.005g/km

PM: 6.0×10^{11} /km

Euro 6

Implementation date (new approvals): 1 September 2014

Implementation date (all new registrations): 1 September 2015

The sixth and current incarnation of the Euro emissions standard was introduced on all new registrations in September 2015. For diesels, the permitted level of NO_x has been slashed from 0.18g/km in Euro 5 to 0.08g/km.

A focus on diesel NO_x was the direct result of studies connecting these emissions with respiratory problems.

To meet the new targets, some carmakers have introduced Selective Catalytic Reduction (SCR), in which a liquid-reductant agent is injected through a catalyst into the exhaust of a diesel vehicle. A chemical reaction converts the nitrogen oxide into harmless water and nitrogen, which are expelled through the exhaust pipe.

The alternative method of meeting Euro 6 standards is Exhaust Gas Recirculation (EGR). A portion of the exhaust gas is mixed with intake air to lower the burning temperature. The vehicle's ECU controls the EGR in accordance with the engine load or speed.

Euro 6 emissions standards (petrol)

CO: 1.0g/km

HC: 0.10g/km

NO_x: 0.06g/km

PM: 0.005g/km (direct injection only)

PM: 6.0×10^{-11} /km (direct injection only)

Euro 6 emissions standards (diesel)

CO: 0.50g/km

HC + NO_x: 0.17g/km

NO_x: 0.08g/km

PM: 0.005g/km

PM: 6.0×10^{-11} /km