

E10 petrol

Vehicle compatibility list 2021 update



LIST OF PETROL VEHICLES COMPATIBLE WITH 'E10' PETROL (ACEA MEMBER COMPANIES)

1. IMPORTANT NOTES APPLICABLE FOR THE COMPLETE LIST HEREUNDER

The European Union's Fuel Quality Directive¹ introduced a new market petrol specification from 1 January 2011 that may contain up to 10% ethanol by volume (10 %vol). Such petrol is commonly known as 'E10'.

It is up to the individual countries of the European Union and fuel marketers to decide if and when to introduce E10 petrol to the market and so far E10 petrol has only been introduced in several European countries.

For vehicles equipped with a spark-ignition (petrol) engine introduced into the European market, this list indicates their compatibility (or otherwise) with the use of E10 petrol.

2. NOTE

In countries that offer E10 petrol, before you fill your vehicle with petrol please check that your vehicle is compatible with the use of E10 petrol.

If, by mistake, you put E10 petrol into a vehicle that is not declared compatible with the use of E10 petrol, it is recommended that you refill the vehicle with E5 petrol at the earliest opportunity or contact your local vehicle dealer, the vehicle manufacturer or roadside assistance provider who may advise that the fuel tank be drained. If it is necessary to drain the fuel from the tank you should ensure it is done by a competent organisation and the tank is refilled with the correct grade of petrol for your vehicle. The vehicle owner is responsible for ensuring the vehicle is fuelled with the correct fuel, according to manufacturer recommendations.

Owners experiencing any issues when using E10 petrol are advised to contact their local vehicle dealer or vehicle manufacturer and to use instead 95RON (or 98RON) petrol that might be identified by 'E5' (or have no specific additional marking) in those countries that offer E10 petrol.

¹ Directive 2009/30/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/EC as regards the specification of petrol, diesel and gas-oil and introducing a mechanism to monitor and reduce greenhouse gas emissions and amending Council Directive 1999/32/EC as regards the specification of fuel used by inland waterway vessels and repealing Directive 93/12/EEC, Official Journal of the European Union L140, 5.6.2009, p.88.

3. OTHER INFORMATION

The EU Fuel Quality Directive¹ requires that member states of the European Union and countries within the European Economic Area (EEA)² that introduce E10 petrol should ensure that sufficient volumes of a lower ethanol content petrol – ie up to 5% ethanol by volume ('E5') – is available for older vehicles that are not compatible with the use of E10 petrol.

Owners in a certain country of the vehicles indicated in this list that are not cleared for the use of E10 should therefore continue to have access to petrol that may contain up to 5 %vol ethanol content (E5), ie see table 2 of standard EN228³.

In addition, it is a general requirement that **fuels containing metallic additives should not be used**. The Fuel Quality Directive¹ requires that a label concerning the metallic additive content of fuel is displayed at any point where a fuel with metallic additives is made available to consumers and that the label shall contain the following text: "Contains metallic additives".

4. ADDITIONAL NOTE ON PETROL OCTANE

It is important to note that the compatibility of a vehicle with petrol depends both on the petrol octane rating and its ethanol content. Depending on the fuel supplier, it may be the case that E5 is offered as either 95 RON (octane) or 98 RON (usually at a higher pump price). The recommended octane requirement for the vehicle must be met and the ethanol content of the petrol may not exceed the compatibility limit. In case of doubt, drivers are advised to contact their dealer and the recommended RON (octane) for any particular vehicle can normally be found in the driver's handbook.

5. VEHICLE AND FUEL PUMP IDENTIFIERS

Article 3(3) of the Fuel Quality Directive¹ says, "[EU member states] shall ensure the provision of appropriate information to consumers concerning the biofuel content of petrol and, in particular, on the appropriate use of different blends of petrol."

Therefore, if different petrol fuels are being sold, the customer must be able to distinguish each one. In this respect, where filling stations may offer both E5 and E10 petrol (meeting EN228), there should be distinctive labelling of the fuel pump to allow customers of new and older petrol vehicles to fill-up with the petrol that is compatible for use in their vehicle.

² The United Kingdom has permitted the sale of E10 petrol as of 1 September 2021.

³ Automotive fuels – Unleaded petrol – requirements and test methods, EN228.

Addressing the concerns of customers regarding “which fuel can I put in my vehicle”, Article 7 of Directive 2014/94/EU⁴ introduces new requirements for the labelling of new vehicles and fuel pumps to provide customers clear information on the compatibility of their vehicle to use certain fuels.

On the basis of that legal requirement, European standard EN16942⁵ provides a new protocol for ‘fuel identifiers’ so customers only need to check for the same fuel identifier around the fuel filler flap / cap of their vehicle and on the fuel pump nozzle and body.

- Please visit the following website about the new fuel identifiers:
<https://www.fuel-identifiers.eu/>
- More information: <https://www.acea.auto/press-release/fuel-labelling-information-to-help-consumers-and-operators-choose-right-fuel-now-published/>

These fuel identifiers have been required on newly produced vehicles and all fuel pumps since October 2018. Vehicles produced earlier may not have these fuel identifiers so owners should take care choosing the right fuel for their vehicle.

DOCUMENT UPDATE HISTORY

9 March 2011	Updated with additional information on Skoda cars
14 March 2011	Updated with additional information on Audi cars
29 July 2011	Updated with additional information on GM Cadillac, Corvette and Hummer cars
12 July 2012	Updated with additional information on GM Chevrolet cars
6 August 2012	Updated information on Ford cars
30 October 2012	Updated information on Mazda cars
29 March 2013	Updated information on Alfa Romeo cars and additional information on Fiat (Chrysler) group cars
29 August 2018	Complete update of the E10 compatibility list
15 December 2021	Complete update of the E10 compatibility list

⁴ Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure, Official Journal of the European Union L307, 28.10.2014, p.1.

⁵ European (CEN) standard EN16942, Fuels – Identification of vehicle compatibility – Graphical expression for consumer information.

BMW GROUP

BMW

All petrol engine BMW models are cleared for the use of E10 petrol regardless of their year of manufacture, but the minimum octane required should be observed according to the owner's manual.

MINI

E10 is cleared for use in all MINI models with petrol engine after the re-launch of the MINI brand in the year 2000.

ROLLS ROYCE

E10 is cleared for use in all Rolls Royce models starting with model year 2003, the launch of the Phantom model.

DAIMLER AG

MERCEDES-BENZ

E10 petrol is cleared for use in the vast majority of all Mercedes-Benz vehicles with petrol engines, except:

- First generation direct injection C200 CGI (W203), CLK 200 CGI series (C209) of the years 2002-2005;
- Models not equipped with three-way catalysts, models retrofitted with three-way catalysts or produced with a carburettor. These are mainly vehicles older than 25 years.

SMART

E10 petrol is cleared for use in all petrol engine Smart vehicles.

MAYBACH

E10 petrol is cleared for use in all Maybach vehicles.

FIAT CHRYSLER AUTOMOBILES (FCA GROUP)

ALFA ROMEO

E10 petrol is cleared for use in all new Alfa Romeo models with petrol engines produced from 1 January 2011.

In addition, E10 petrol is cleared for use in the following Alfa Romeo models with petrol engines:

- MiTo (all engines)
- Giulietta (all engines)
- 159: 1.8 16V, 1.8 TBi 16V, 3.2 JTS V6
- Brera: 1.8 TBi 16V, 3.2 JTS V6
- Spider: 1.8 TBi 16V, 3.2 JTS V6
- 8C: 4.7 32V

FIAT

E10 petrol is cleared for all Fiat vehicles with petrol engines of Euro 3 emission level or newer, starting from model year 2000, except the following vehicles:

- Barchetta: 1.8 16V
- Bravo/Brava (182): 1.6 16V
- Doblò: 1.6 16V
- Marea: 1.6 16V, 2.0 16V
- Multipla: 1.6 16V
- Palio: 1.6 16V
- Punto (188): 1.8 16V
- Stilo: 1.6 16V (1.596 cm³), 1.8 16V, 2.4 20V

LANCIA

E10 petrol is cleared for use in all Lancia vehicles with petrol engines of Euro 3 emission level starting from model year 2000, excluding the following vehicles:

- Lybra: 1.6 16V, 1.8 16V, 2.0 20V
- Thesis: 2.0 Turbo 20V, 2.4 20V, 3.0 V6 24V, 3.2 V6 24V

CHRYSLER

E10 petrol is cleared for use in the following Chrysler models with petrol engines:

- Chrysler 300 C (LX) - all engines
- Chrysler 300 M (LR) - all engines
- Chrysler Grand Voyager (RT) - all engines
- Chrysler Neon (PL) - all engines
- Chrysler PT Cruiser (PT) - all engines
- Chrysler Sebring (JR) - all engines
- Chrysler Sebring (JS) - all engines
- Chrysler Stratus (JA, JX) - all engines
- Chrysler Voyager (GS) - all engines
- Chrysler Voyager (RG) - all engines

DODGE

E10 petrol is cleared for use in the following Dodge models with petrol engines:

- Dodge Avenger (JS) - all engines
- Dodge Caliber (PK) - all engines
- Dodge Journey - all engines
- Dodge Nitro (KJ) - all engines

JEEP

E10 petrol is cleared for use in the following Jeep models with petrol engines:

- Jeep Cherokee (KJ) - all engines
- Jeep Cherokee (XJ) - all engines
- Jeep Cherokee (KL) - all engines
- Jeep Commander (WH) - all engines
- Jeep Compass (PK) - all engines
- Jeep Compass (MX) - all engines
- Jeep Grand Cherokee (WH) - all engines

- Jeep Grand Cherokee (WJ) - all engines
- Jeep Grand Cherokee (WK) - all engines
- Jeep Patriot (PK) - all engines
- Jeep Renegade (BU) - all engines
- Jeep Wrangler (JK) - all engines
- Jeep Wrangler (TJ) - all engines

FORD OF EUROPE

E10 is cleared for use in all petrol driven Ford models sold in Europe since 1992 excluding:

- Ford Mondeo 1.8 SCI from 2003 to 2007.

Personal imports not approved by Ford of Europe are not included in the above statement.

JAGUAR LAND ROVER

JAGUAR

E10 petrol is cleared for use in all Jaguar vehicles with petrol engines starting from model year 1992.

LAND ROVER

E10 petrol is cleared for use in all Land Rover vehicles with petrol engines starting from model year 1996.

HONDA MOTOR EUROPE

E10 petrol is cleared for use in all European models with petrol engines equipped with electronic control fuel injection system (HONDA PGM-FI). This covers at least all Honda cars with petrol engines as from model year 1995.

All Honda cars that do not use fuel injection petrol engines should continue to use E5.

HYUNDAI MOTOR EUROPE / KIA / GENESIS

All Hyundai cars with a petrol engine can use E10 petrol without limitation.

All Kia cars with a petrol engine can use E10 petrol without limitation.

All Genesis cars with a petrol engine can use E10 petrol without limitation.

PSA GROUP

PEUGEOT, CITROËN AND DS

All cars with petrol engines are E10 (EN228) compatible since 1 January 2000.

OPEL-VAUXHALL

E10 petrol is cleared for use in all Opel-Vauxhall vehicles with petrol engines, excluding:

- Models with the 2.2 litre direct injection petrol engine, motor code: Z22YH (Vectra, Signum, Zafira).

GENERAL MOTORS GROUP

CADILLAC

The following Cadillac models equipped with a petrol engine and regulated with catalytic converter and lambda probe can be used with E10 petrol:

- Cadillac BLS
- Cadillac CTS
- Cadillac CTS-V
- Cadillac Eldorado
- Cadillac Seville STS and SLS
- Cadillac SRX
- Cadillac STS
- Cadillac STS-V
- Cadillac XLR

- Cadillac XLR-V
- Cadillac Escalade
- Cadillac Escalade Hybrid

If in doubt please contact the Cadillac Customer Assistance Centre, e-mail cadillac.europe@gm.com, international free phone 00800 8680 8800⁶.

CHEVROLET

All Chevrolet vehicles produced from the model year 2006 with a Euro 4 emissions compliant engine can be run with E10 petrol:

- Aveo / Kalos - 2005 onwards
- Captiva - all
- Cruze / Orlando - all
- Epica - all
- Matiz - 2006 onwards
- Nubira / Lacetti - 2006 onwards
- Tacuma / Rezzo - 2006 onwards
- Spark - all

This information applies to vehicles in original condition. The suitability of E10 petrol may be affected, particularly in older Chevrolet cars, through the use of non-original Chevrolet parts or through conversions.

If fuel additives are used, please observe the instructions of the additive manufacturer.

CORVETTE

The following Corvette models equipped with a petrol engine and regulated with catalytic converter and lambda probe can be used with E10 petrol:

- Corvette C4
- Corvette C5
- Corvette C6
- Corvette Z06

⁶ Calls from mobile networks may be charged fees, please consult your mobile phone provider.

- Corvette Grand Sport
- Corvette ZR1

If in doubt please contact the Corvette Customer Assistance Centre, e-mail corvette.europe@gm.com, international free phone 00800 8680 8800⁶.

HUMMER

The following Hummer models equipped with a petrol engine and regulated with catalytic converter and lambda probe can be used with E10 petrol:

- Hummer H2
- Hummer H2T
- Hummer H3
- Hummer H3T

If in doubt please contact the Hummer Customer Assistance Centre, e-mail hummer.europe@gm.com, international free phone 00800 8680 8800⁶.

RENAULT GROUP

ALPINE

E10 is cleared for use in all petrol driven Alpine vehicles marketed since March 2018.

DACIA

E10 is cleared for use in all petrol driven Dacia vehicles.

RENAULT

E10 petrol is cleared for use in all Renault petrol vehicles marketed since 1 January 1997, with the exception of the following models:

- Renault 19
- Megane 1 with 2.0 litre F5R 700 direct injection petrol engine
- Megane 1 with 2.0 litre F5R 740 direct injection petrol engine
- Laguna 2 with 2.0 litre F5R 782 direct injection petrol engine

and the following models marketed between 1 January 2000 and 31 December 2002:

- Laguna 2 with 2.0 litre F4R 764 Turbo engine
- Laguna 2 with 2.0 litre F4R 765 Turbo engine
- Espace 4 with 2.0 litre F4R 790 Turbo engine
- Espace 4 with 2.0 I F4R 794 Turbo engine
- Velsatis with 2.0 litre F4R 762 Turbo engine
- Velsatis with 2.0 litre F4R 763 Turbo engine
- Avantime with 2.0 litre F4R 760 Turbo engine
- Avantime with 2.0 litre F4R 761 Turbo engine

TOYOTA MOTOR EUROPE

TOYOTA

E10 petrol is cleared for use in all Toyota European petrol models made from January 1998, excluding:

- Avensis 2.0 litre with engine 1AZ-FSE made between July 2000 and October 2008
- Avensis 2.4 litre with engine 2AZ-FSE made between June 2003 and October 2008

LEXUS

E10 petrol is cleared for use in all Lexus European petrol models made from January 1998, excluding:

- IS250 2.5 litre V6 with engine 4GR-FSE made between August 2005 and September 2007
- GS300 3.0 litre V6 with engine 3GR-FSE made between January 2005 and September 2007
- LS460 4.6 litre V8 with engine 1UR-FSE made between August 2006 and September 2007

VOLKSWAGEN GROUP

AUDI

E10 petrol is cleared for use in all Audi petrol driven vehicles, excluding the following vehicles:

- First generation direct injection engines:
 - Audi A2 1.6 FSI, model years 2003-2005
 - Audi A3 1.6 FSI, model year 2004
 - Audi A3 2.0 FSI, model year 2004
 - Audi A4 2.0 FSI, model years 2003-2004
- Audi A4 Saloon petrol engine models with OEM parking heater, of model years 2001-2008. E10 is not suitable for use during the heating season in countries with colder climates.
- Audi A4 Avant petrol engine models with OEM parking heater of model years 2002-2008. E10 is not suitable for use during the heating season in countries with colder climates.

PORSCHE

E10 petrol is cleared for use in Porsche vehicles with petrol engines since the 1998 model year and all Boxster models with petrol engines since the 1997 model year. The Carrera GT is not cleared for use with E10 petrol.

SEAT

With few exceptions, E10 petrol is cleared for use in all SEAT vehicles with petrol engines. The exceptions are the following models with the first generation of FSI engines:

- Toledo 2.0 FSI (110 kW) 'BLR' manufactured from September 2004 to November 2005 (model year 2005/6)
- Leon 2.0 FSI (110 kW) 'BLR' manufactured from July 2005 to November 2005 (model year 2006)
- Altea 2.0 FSI (110 kW) 'BLR' manufactured from May 2004 to November 2005 (model year 2005/6)

ŠKODA

E10 petrol is cleared for use in all following Škoda vehicles with petrol engines with the following exception:

- Felicia 1.3 litre OHV (40kW and 50kW) engines used in Felicia models in the production years 1994 to 2001 and in car models before. A retrofit option exists for these engines to make them compatible with the use of E10 petrol – owners are advised to consult their dealer.

VOLKSWAGEN

E10 is cleared for use in all Volkswagen vehicles with petrol engines with the exception of the following models with the first generation of FSI engines of model years 2000 to 2006 that should use E5 petrol or petrol that does not contain ethanol:

- Lupo 1.4 (77 kW) made from August 2000 to November 2003 (model year 2001-2004)
- Polo 1.4 FSI (63 kW) made from February 2002 to June 2006 (model year 2002-2006)
- Golf IV 1.6 FSI (81 kW) made from November 2001 to May 2004 (model year 2002-2004)
- Golf IV Variant 1.6 FSI (81 kW) made from October 2001 to October 2006 (model year 2002-2006)
- Bora 1.6 FSI (81 kW) made from October 2001 to September 2005 (model year 2002-2005)
- Bora Variant 1.6 FSI (81 kW) made from October 2001 to September 2005 (model year 2002-2005)
- Golf V 1.4 FSI (66 kW) made from November 2003 to November 2004 (model year 2004-2005)
- Golf V 1.6 FSI (85 kW) made from August 2003 to May 2004 (model year 2004)
- Golf V 2.0 FSI (110 kW) made from January 2004 to May 2004 (model year 2004)
- Touran 1.6 FSI (85 kW) made from November 2002 to May 2004 (model year 2003-2004)
- Touran 2.0 FSI (110 kW) made from October 2003 to May 2004 (model year 2004)

E10 intolerance only affects first generation FSI vehicles that were produced in the period mentioned above. It does not affect vehicles with MPI petrol engines or TSI petrol engines (regardless of the production date) and it also does not affect vehicles with FSI engines produced after 2006.

VOLVO CARS

E10 petrol is cleared for use in all Volvo cars with petrol engines introduced to the market since 1976 based upon servicing and other conditions according to the equipment and material with which the vehicle was originally equipped.

E10 petrol is not cleared for a limited number of S/V40 models with petrol engines produced in the mid-1990s with engine type 1.8 GDI.

LIST OF PETROL VEHICLES COMPATIBLE WITH 'E10' PETROL (JAMA⁷ MEMBER COMPANIES)

DAIHATSU

E10 petrol is cleared for use in the following models with petrol engines:

- Cuore L276: from production date 25 April 2008*
- Trevis L651: from production date 8 May 2008*
- Sirion M3#: from market introduction
- Materia M4#: from market introduction
- Terios J2#: from market introduction
- Copen L881: from production date 25 April 2008*

* Contact Daihatsu dealers or distributor for confirmation of E10 compatibility of individual vehicle.

NISSAN

E10 petrol is cleared for use in all models with petrol engines from 1 January 2000.

MAZDA

E10 petrol is cleared for use in all models with petrol engines introduced in and from the year 2002, Mazda6 (GG/GY) and models with petrol engines introduced thereafter.

MITSUBISHI

E10 petrol is cleared for use in all models with petrol engines except those equipped with the GDI engine (gasoline direct injection) until 2007 models.

⁷ The Japanese Automobile Manufacturers Association (JAMA) collaborated with ACEA on the publication of this E10 list for vehicles produced by JAMA members.



SUBARU

E10 petrol is cleared for use in all models with petrol engines manufactured from 1 January 1991.

SUZUKI

E10 petrol is cleared for use in all current production models with petrol engines. For older models please refer to the owner's manual.



ABOUT THE EU AUTOMOBILE INDUSTRY

- 12.6 million Europeans work in the auto industry (directly and indirectly), accounting for 6.6% of all EU jobs
- 11.6% of EU manufacturing jobs – some 3.5 million – are in the automotive sector
- Motor vehicles are responsible for €398.4 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €76.3 billion for the European Union
- The turnover generated by the auto industry represents more than 8% of the EU's GDP
- Investing €62 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 33% of the EU total

REPRESENTING EUROPE'S 16 MAJOR CAR, VAN, TRUCK AND BUS MANUFACTURERS

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